2005

Report of the

Commissioner of the Environment and Sustainable Development

to the House of Commons

The Commissioner's Perspective—2005

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters and The Commissioner's Perspective—2005. The main table of contents is found at the end of this publication.

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Commissioner of the Environment and Sustainable Development of Canada
Commissaire à l'environnement et au développement durable du Canada
Office of the Auditor General of Canada • Bureau du vérificateur général du Canada

To the Honourable Speaker of the House of Commons:

On behalf of the Auditor General of Canada, I have the honour to transmit herewith my Report to the House of Commons for 2005, which is to be laid before the House in accordance with the provisions of section 23(3) of the *Auditor General Act*.

Johanne Gélinas

Johanne Gélinas
Commissioner of the Environment
and Sustainable Development

OTTAWA, 29 September 2005

To the reader:

I welcome your comments and suggestions on this Report and other issues related to the environment and sustainable development. I can be reached at the following address:

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The Commissioner's Perspective—2005

Table of Contents

Introduction 1

Nature is telling us that our current path is unsustainable 1

Sustainable development: The approach we have chosen 2

The government's chronic inability to sustain initiatives 4

Drinking water and human health 5

Drinking water in First Nations communities 5

Other federal responsibilities for drinking water 6

Natural capital 6

Oceans management 7

Ecological integrity in Canada's parks 7

Canadian Biodiversity Strategy 8

Sustainable development in government 9

An important sustainable development tool: Green procurement 10

The unrealized potential of sustainable development strategies 10

What will it take for the government to cross the finish line? 12

Appendices

A. *Auditor General Act*—Excerpts 14

B. Report on the exercise of the Governor in Council's authority under subsections 24(3) to 24(5) of the *Auditor General Act* 18

C. Main Points of chapters 1 to 8 19

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Introduction

Nature is telling us that our current path is unsustainable

Johanne Gélinas
Commissioner of the Environment and Sustainable Development

Transforming the relationship humans have with nature is among the greatest challenges facing us in the 21st century. Many human activities cause ecological damage, and this situation will only intensify as the global population climbs from six billion today, with some projecting a level of about nine billion by 2050. In addition, China, India, and other developing countries are increasing their consumption of fossil fuels and other natural resources. Serious environmental consequences from habitat loss, the decline of the world's fish stocks, air pollution, climate change, and deteriorating fresh water systems will, in turn, have major negative economic and social impacts on communities and nations worldwide.

In my role as Commissioner of the Environment and Sustainable Development, I hear about environmental problems from around the world. It is clear that environmental limits are real and are being approached everywhere, including Canada. Nature is telling us that our current path is unsustainable. This year the Millennium Ecosystem Assessment, involving about 1,360 experts from around the world, reached this troubling conclusion:

> At the heart of this assessment is a stark warning. Human activity is putting such strain on the natural functions of Earth that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted. The provision of food, fresh water, energy, and materials to a growing population has come at considerable cost to the complex systems of plants, animals, and biological processes that make the planet habitable. … Nearly two thirds of the services provided by nature to humankind are found to be in decline worldwide. In effect, the benefits reaped from our engineering of the planet have been achieved by running down natural capital assets.

Canada is not immune from this global environmental decline, and the accompanying decline in our ability to sustain our needs and those of future generations. If Canada is to avoid such consequences, we must all take bold steps, with government leading the way.

Did you know?

- Between 10 to 30% of mammal, bird, and amphibian species globally are currently threatened with extinction.
- The frequency and impact of floods and fires has increased significantly in the past 50 years, in part due to ecosystem changes.
- One quarter of important commercial fish stocks are overexploited or significantly depleted.

Source: *Millennium Ecosystem Assessment*, 2005

10th anniversary of the creation of the position of the Commissioner of the Environment and Sustainable Development

This year marks the 10th anniversary of the creation of the position of Commissioner of the Environment and Sustainable Development within the Office of the Auditor General of Canada. My work, and that of my office, focusses on the following activities:

Auditing for results. Our performance audits look at whether activities designed to respond to federal environmental and sustainable development policies are well-managed, with a focus on results. We select audit topics based on a range of considerations and input. We also monitor departmental progress on recommendations from past audits, and we conduct follow-up audits of activities reported previously.

Monitoring sustainable development strategies. Designated departments and agencies are required by law to prepare sustainable development strategies and update them every three years. These strategies are meant to be the main vehicle to drive responsible management, from an environmental and sustainable development perspective, throughout the federal government. We assess the quality of the strategies, and we monitor and report on the progress of departments and agencies in meeting selected commitments made in their strategies.

Managing the petitions process for Canadians. The petitions process was established by Parliament to make sure Canadians get timely answers from federal ministers on specific environmental and sustainable development issues that involve federal jurisdiction. Petitions have prompted action by federal departments on topics such as new environmental projects, follow-up on alleged violations, and changes or clarifications in policies and practices. A catalogue of petitions and responses is available at www.oag-bvg.gc.ca/domino/petitions.nsf/english.

As Commissioner, I also chair an international group of environmental auditors from 54 countries. The Working Group on Environmental Auditing assists national auditors from around the world in acquiring a better understanding of the specific issues involved in environmental auditing, to facilitate exchange of information and experience among auditors, and to produce guidelines and other informative material. I invite you to visit the Working Group's Web site at www.environmental-auditing.org for information on its products and activities.

Sustainable development: The approach we have chosen

In 1987 the World Commission on Environment and Development released its landmark report, *Our Common Future*. Since then, sustainable development has become widely recognized as the chosen approach to integrate environmental, economic, and social concerns (Exhibit 1).

Exhibit 1 **The pillars of sustainable development**

The World Commission on Environment and Development brought sustainable development to the world's attention. The Commission's report, *Our Common Future*, focussed on three pillars of human well-being:

- economic conditions—such as wealth, employment, and technology;
- socio-political conditions—such as security and democracy; and
- environmental and resource conditions—such as the quality of our air and water and the availability of capital in the form of natural resources.

While the concept is almost 20 years old, implementing sustainable development is still in its early stages, including in Canada. Sustainable development has been compared in scale to two other great transformations in human history: the agricultural revolution and the industrial revolution. The changes to our society that the sustainability "revolution" will bring will be as significant as those brought by the other two. Governments have a central role to play, not only in implementing sustainable development, but also in moving their citizens and industries toward sustainability.

The countries that adapt the fastest to sustainable development will seize the opportunities. Will Canada be one of these?

This move toward sustainability can be seen in a multitude of initiatives to entrench sustainable development into public policy and industry practice. Occasionally, on the global level we can see the making of a revolution in thinking and practice (Exhibit 2).

Sustainable development is feasible, and there are many real opportunities for innovative people to find solutions to the environmental problems we create. As the world responds to this challenge in the early 21st century, those who anticipate and prevent environmental degradation will save money and create economic opportunities. The countries and companies that adapt the fastest will seize the opportunities. Will Canada be one of these?

After five years as Commissioner of the Environment and Sustainable Development, I have seen uneven performance by the federal government in creating and implementing a sustainable development

Exhibit 2 **Sustainable development innovations**

- Fresh approaches are emerging that are reducing the waste often inherent in the design of products, communities, and industrial systems. For example, consumer products from cars to carpets are being designed in new ways that change how we make, use, and dispose of them.
- Some national governments—for example, the United Kingdom through its *Securing the Future: Delivering UK Sustainable Development Strategy*—are putting in place strategies to ensure that society and economy are sustainable and competitive in a world where the public and private sectors are hungry for sustainable solutions.
- Led by organizations such as the World Business Council on Sustainable Development, much is happening in the private sector. Companies now see sustainable development initiatives as both creating value and increasing their advantage over competitors.
- Cities have become the focal point for debates about sustainability in the future. Urban sprawl is "out" because of its environmental, economic, and social costs, while greater density within existing city boundaries is the new objective. A movement is afoot to "green" infrastructure and make lifestyles more sustainable in terms of transportation and consumption of energy, water, and consumer goods.

approach to policy and operations. While the government continues to make some progress against its sustainable development goals, on several occasions, it has fallen short of making the level of commitment needed.

The government's chronic inability to sustain initiatives

A productive, healthy environment is at the heart of the concept of sustainable development. The way we damage our ecosystems has repercussions on a number of issues that we examine in this year's audits. These include the quality of drinking water, the health of our oceans, and our stores of biological diversity.

As always, we examined issues covering a broad array of environmental and sustainable development issues (Exhibit 3). We also audited departments' responses to environmental petitions submitted by Canadians (see Exhibit 4, page 9). A recurring theme throughout this year's Report is that the federal government suffers from a chronic inability to see its own initiatives to completion; it starts out but rarely, if ever, reaches the finish line.

Exhibit 3 **2005 Report of the Commissioner of the Environment and Sustainable Development**

- Fisheries and Oceans Canada—Canada's Oceans Management Strategy (Chapter 1)
- Ecological Integrity in Canada's National Parks (Chapter 2)
- Canadian Biodiversity Strategy: A Follow-Up Audit (Chapter 3)
- Safety of Drinking Water: Federal Responsibilities (Chapter 4)
- Drinking Water in First Nations Communities (Chapter 5)
- Green Procurement (Chapter 6)
- Sustainable Development Strategies (Chapter 7)
  - Government-Wide Direction
  - Quality of the 2004 Strategies
  - Action on Strategy Commitments
  - Action on International Commitments
- Environmental Petitions (Chapter 8)
  - Annual Report on Petitions
  - Insurance for Nuclear Operators
  - Guidelines for Listing Species at Risk
  - Impacts of Hog Farming

The Main Points of these chapters are included in Appendix C.

Drinking water and human health

Access to fresh water in general, and safe drinking water in particular, is of great concern to Canadians. Safe drinking water is a basic requirement of human health, and Canadians assume that the water they drink will be of high quality in a developed country like ours. The truth, however, is that when federal responsibility is involved, not all Canadians can assume that their drinking water is always safe. The government is not working hard enough to protect Canadians from unsafe drinking water.

While the provinces and territories have the legislative responsibility for regulating the provision of safe drinking water to the public in general, federal responsibilities for drinking water can have an impact on millions of people. These include responsibilities for water consumed by residents of First Nations communities; federal employees; and passengers on trains, airplanes, and cruise ships travelling between provinces and internationally.

In examining federal responsibilities for the safety of drinking water, we found gaps that may put people's health at risk.

Drinking water in First Nations communities

Across Canada, approximately half a million people live in First Nations communities. Many of these people are exposed to risks from unsafe drinking water. For example, in 2001 Indian and Northern Affairs Canada found a significant risk to the quality or safety of drinking water in three quarters of the water systems in First Nations communities. People in these communities do not benefit from the same safeguards on drinking water as most Canadians who live off reserves. The main reasons are a lack of a regulatory regime for drinking water in First Nations communities and fragmented technical support available to First Nations for the design, construction, operation, and maintenance of water systems. There are also a number of management and operational issues that contribute to this, such as inconsistent implementation of government guidelines and failure to carry out water testing.

In examining federal responsibilities related to the safety of drinking water, we found gaps that may put people's health at risk.

Unless strong action is taken, it is unlikely that the federal First Nations Water Management Strategy, a five-year initiative approved in 2003 with a budget of $600 million, will improve the quality and safety of First Nations drinking water on a continuing basis (Chapter 5 provides further detail).

Other federal responsibilities for drinking water

Apart from First Nations communities, the federal government has a number of other responsibilities to ensure safe drinking water for Canadians.

The federal government develops drinking water guidelines in partnership with provinces and territories. The guidelines specify the maximum acceptable concentration of contaminants in drinking water. They are used at the federal, provincial, and territorial levels in different ways, ranging from general guidance to legally required standards. The process to develop the guidelines, although sound, is slow, sometimes delaying the planned time for developing the guidelines by several years. At the current pace, it could take over 10 years to deal with a current backlog of about 50 guidelines that the federal government needs to examine to ensure that they are up-to-date.

Health Canada is responsible for inspecting water quality on aircraft, trains, and cruise ships that travel between provinces, and internationally. However, it is not fulfilling this responsibility on passenger aircraft, where it no longer carries out routine inspections due to unresolved funding issues between the government and air carriers. Health Canada therefore cannot assure millions of Canadian travellers that the tap water used for drinking and food preparation on board passenger aircraft is safe.

Federal responsibility is also clearly defined in regulations for the protection of federal employees, which state that they are to be provided with water that meets the drinking water guidelines. The six federal departments and agencies we looked at had different internal procedures and requirements for testing. This resulted in mixed compliance with the guidelines, with some sites surpassing the guidelines, and others not testing at all. Health Canada is currently preparing uniform guidance for departments, which is needed as a step toward remedying the patchy federal compliance with the drinking water guidelines (Chapter 4 provides further detail).

Natural capital

Stewardship of our natural capital has fallen short of commitments made by Canada, both domesticaly and internationally.

Natural capital is a crucially important building block for a sustainable society. Natural capital refers to natural resources, such as water and oil, land that provides space on which to live and work, and the ecosystems that maintain clean water, air, and a stable climate. Unlike other types of capital, such as buildings or machines, natural capital is often irreplaceable. Stewardship of our natural capital has fallen short of commitments made by Canada, both domestically and internationally. While our audits found some good efforts involving the management of natural capital, these are often hindered by problems with implementation and management.

Oceans management

Ocean ecosystems are deteriorating everywhere, including in Canada. Expectations were raised that the 1996 *Oceans Act* and the 2002 Canada's Oceans Strategy would help solve these problems; however, those expectations have not been met. The main tools of the *Oceans Act*—integrated management plans and marine protected areas—have not accomplished the desired results. Fisheries and Oceans Canada has fallen far short of meeting its commitments to develop and implement these tools. For example, marine protected areas are one of the primary means to protect marine habitat and biodiversity. However, of the 13 areas of interest identified between 1998 and 2000, Fisheries and Oceans Canada has designated only two as marine protected areas. At this rate, Canada is in danger of not meeting its international commitment to establish representative networks of marine protected areas by 2012.

The slow progress can be attributed, in part, to a lack of funding, poorly defined results, and weak accountability. Furthermore, there is evidence that interdepartmental committees are not providing leadership, and Fisheries and Oceans Canada is having trouble breaking out of the "fisheries" mindset to lead on broader oceans issues.

Expectations are rising again as a result of the 2005 release of Canada's Oceans Action Plan and Canada's Federal Marine Protected Areas Strategy. It is critical that Fisheries and Oceans Canada maintain the momentum gained from these and follow through on the planned designation of new marine protected areas. Canada was once a world leader in oceans management and should seize the opportunity to regain this position (Chapter 1 provides further detail).

Ecological integrity in Canada's parks

Our national parks are living monuments to Canada's natural heritage. The health of Canada's national parks is in danger, jeopardizing the ecological and economic benefits they are intended to provide. This stress is evident both inside and outside the parks and stems from factors such as development and visitor use.

To help the Parks Canada Agency achieve its mandate, the new *Canada National Parks Act* has established that the Agency's main priorities are the ecological integrity of national parks and Canadians' understanding and enjoyment of the parks. To back this up, major new financial resources have flowed to Parks Canada in the 2003 and 2005 budgets, which it will use to advance these priorities.

These are important developments, but further improvements are needed. For example, not all park management plans are up-to-date in the 12 parks we examined. These plans are supposed to set out specific objectives and actions a park will undertake to maintain or restore ecological integrity. In addition, reporting on the implementation of these plans is required annually, but this has not been happening on a regular basis. Parks Canada also needs to improve its national state of the parks reports, so that they communicate more clearly how the state of national parks is changing over time. The results of monitoring and restoration projects also need to be better used at the park level to inform visitors and enhance public education and awareness.

With the new funding and the new measures it is putting in place, the federal government has started to move forward. Parks Canada has an opportunity to make a real difference in the management of national parks and in the public's understanding of national parks. Successful and consistent implementation across all parks over the next few years will be critical in determining if Parks Canada will realize this opportunity (Chapter 2 provides further detail).

Canadian Biodiversity Strategy

Canada was the first major industrialized country to ratify the Convention on Biological Diversity in 1992, and in 1996 the Canadian Biodiversity Strategy was endorsed by federal, provincial, and territorial ministers. Since then, implementation of the strategy has faltered, leaving important initiatives to drift.

This year's follow-up is our third audit of federal implementation of the Canadian Biodiversity Strategy since 1998. Problems identified in our previous audits persist, and the new commitments we examined in the areas of biodiversity science and monitoring produced no tangible results or were behind schedule. Understanding Canada's biodiversity is key to protecting it from human-driven damage and ensuring that it continues to provide Canadians with numerous benefits, from clean air and water to the pollination of food crops. Almost ten years after the federal government signed on to the strategy, there is no coherent plan to implement it.

Work is taking place on a new national approach, although it is still in its early stages. This approach involves federal departments, as well as provincial and territorial governments, which are also responsible for biodiversity. Given the unsatisfactory progress in the areas we examined, and the lack of direction for the strategy overall, the federal government needs to take a hard look at its approach to biodiversity, assess how the strategy is being implemented, and tell Canadians how it plans to make the strategy work (Chapter 3 provides further detail).

Exhibit 4 **Audits of the government's response to environmental petitions**

Any Canadian resident—individual, organization, business, or municipality—may submit an environmental petition to the Auditor General of Canada and receive a response from the federal minister or ministers responsible for that environmental issue. Petitions have resulted in commitments by ministers and action by departments on environmental issues.

As part of our monitoring role, we audit selected federal departmental responses to past petitions and audit them to determine if ministers and departments have taken action on commitments made to Canadians in those responses. This year we found that progress to address commitments made to petitioners has been slow.

- Since 2002, we have received three petitions from Canadians who are concerned about the impact of large-scale hog farming on their communities and on their water quality. Despite the growth and intensification of the industry, our audit shows that Environment Canada and Agriculture and Agri-Food Canada do not know if their programs and activities are succeeding in reducing the impacts of hog farming on the environment.
- In another audit, we found that Natural Resources Canada has yet to amend the *Nuclear Liability Act*—a commitment the minister made in response to a petition. The Act is 30 years old, and the current insurance requirements for nuclear operations are significantly lower than those imposed in 12 other major industrial countries.
- The *Species at Risk Act* was introduced in 2002 to protect and recover species at risk. In response to a petition, the Minister of the Environment committed to establishing guidelines to assist the government in deciding which species to protect by designating them to be at risk. Environment Canada has indicated that these guidelines will not be in place until 2006. In the meantime, decisions are being made without the benefit of guidelines intended to make the process consistent and transparent.

Sustainable development in government

Following the release of the 1987 report, *Our Common Future*, governments around the world chose sustainable development as the approach to get us off the wrong path of non-sustainability and collapse, and onto the path of sustainability and renewal. Implementing a sustainable development approach to governing is a creative process that takes time and leadership.

An important sustainable development tool: Green procurement

I have argued before that the Government of Canada is not making adequate use of all the tools available to promote sustainable development. Green procurement is a prime example. With reported spending of about $13 billion in 2003, the federal government is one of the largest consumers of goods and services in Canada. By greening its procurement, the federal government can reduce its environmental impact and create a demand in the marketplace for sustainable products and services. Green procurement fits well with the government's interest in merging "competitiveness and environmental sustainability," as it can push Canadian business to the forefront of the sustainability revolution. The government has long recognized these benefits and, since 1992, has made a commitment to pursue green procurement.

I have argued before that the Government of Canada is not making adequate use of all the tools available to promote sustainable development. Green procurement is a prime example.

Despite the compelling business case, strong sustainability benefits, and repeated government commitments, the government is far from using the vast potential of green procurement to achieve sustainability. It is astounding that the government has been promising a policy to direct departments to green their procurement for over a decade—and the policy still is not ready. While we wait, opportunities to make environmentally sound choices are being missed every day. Will the government meet its most recent promise in the Speech from the Throne, to implement the policy by 2006?

The government regularly calls on Canadians to green their daily activities; green procurement is a key test of whether the government is willing to do what it expects Canadians to do (Chapter 6 provides further detail).

The unrealized potential of sustainable development strategies

Since the mid-1990s, the federal government has chosen a "decentralized" approach to institutionalizing sustainable development, by having individual departments develop and implement their own sustainable development strategies. However, the process for the strategies is government-wide and needs government-wide direction. Yet, the often-promised federal sustainable development strategy has not been delivered. The federal government could not even agree on priorities in time to influence the 2004 departmental strategies. As a result, departments had little direction in co-ordinating their own strategies.

Canada unfortunately faces a serious barrier to making progress on sustainable development—a lack of leadership at the senior management level. The Privy Council Office delegated responsibility to deputy ministers at the Environment and Sustainable Development Co-ordinating Committee for setting government-wide expectations for departmental sustainable development strategies. The deputy ministers didn't deliver on many of the expectations of the Clerk of the Privy Council, and the committee ceased activities over the past year.

Inaction on international commitments

The deputy ministers' Environment and Sustainable Development Co-ordinating Committee was tasked by the Clerk of the Privy Council to develop an action plan to ensure implementation of commitments Canada made at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa. Despite this direction from the Clerk, and our recommendations since 2002 that an action plan be prepared, the committee has not done this.

Changes are required in the way sustainable development is institutionalized. Two things are key:

- After many promises and false starts, a federal sustainable development strategy is long overdue. The government has many important green initiatives, including several announced in the last Speech from the Throne. But, without some form of a federal sustainable development strategy, parliamentarians and Canadians are left without a clear idea of the government's overall sustainable development plan, how it will get there, and what progress it has made. A federal sustainable development strategy would provide common priorities, co-ordinate departmental efforts, and help to realize the potential of departmental sustainable development strategies.
- A new deputy ministers' committee has been established to replace the Environment and Sustainable Development Co-ordinating Committee. In order to succeed where previous ones have failed, this committee will need to be much more actively engaged, and deputy ministers will need to be held more accountable to meet their commitments.

The government must move quickly in order to have this in place for the next round of sustainable development strategies, which will be completed by December 2006. If not, we will lose another opportunity to improve the sustainable development strategies—and the strategies will go another three years without the government realizing their full potential (Chapter 7 provides further detail).

What will it take for the government to cross the finish line?

The consistent message throughout this year's audits is that the federal government is chronically unable to sustain initiatives, once they are launched. Federal experience with the Canadian Biodiversity Strategy, Canada's Oceans Strategy, and guidance for sustainable development strategies are just the latest examples of this failure to follow through on bold promises.

After five years of auditing government performance, I have often asked myself why the government does not reach the finish line on its environmental and sustainable development commitments. I have come to the conclusion that there are several root causes:

- Government leadership has a tendency to commit without putting in place the structure or resources to deliver on its promises.
- Deputy ministers and assistant deputy ministers are not held accountable for the performance of their departments in initiating and seeing through to completion more sustainable forms of development. Leadership and disciplined senior management are required to get the job done.
- Organizational silos and turf protection impair the integration of sustainable development across departments—integration that is inherently needed. As a result, anything that requires action across departments is particularly vulnerable to collapse.
- In many areas, the federal government keeps reinventing the wheel by changing key staff and changing the design of programs, without regard for achieving results.

Because of these problems, isolated pockets of good effort and success are often outweighed by backsliding in other areas. So the performance is once again unimpressive—the government continues to talk a good line about sustainable development and sometimes commits financial resources, but often fails to adequately implement its own commitments. This is not good news, given the mounting evidence that we are on an unsustainable path.

The government's current promises, if fulfilled, would improve Canada's environmental position. But further new thinking is required to truly achieve sustainable development. Albert Einstein stated that, "the significant problems we face cannot be solved by the same level of thinking that created them." Achieving sustainability within a generation will require that we Canadians significantly transform our society. The federal government should be leading this sustainability revolution.

I am by no means the only one saying that the federal government has to improve its performance in this regard. There have been two recent, high-level calls for a government transformation toward sustainability. The Senate's Standing Committee on Energy, the Environment and Natural Resources recently tabled a report that stated:

> It's time for the Government of Canada to step up to the plate, to show leadership, and to introduce the necessary reforms. This requires greater political will, greater co-ordination and integration within and across federal departments, and perhaps most importantly, a greater recognition that sustainable development is one of the most pressing issues facing the country today.

Canada's most senior public servant, the Clerk of the Privy Council, testified before the Senate Committee:

> We are looking for a true shift to sustainability in how we produce, consume and live our lives. … we will roll out a much more committed strategy to sustainable development that will really take hold.

He stated that we need "long-term, fundamental, transformative change" in our industrial processes and to "make the culture or paradigm shift" within the public service. He went on to say that the government must become a leader in green procurement and that the government will make greater use of fiscal instruments to pursue sustainable development goals. The Clerk concluded his remarks by stating: "I believe that we can be a leader in environmental sustainable development within a generation."

I could not have said it better myself.

Appendix A *Auditor General Act*—Excerpts

An Act respecting the Office of the Auditor General of Canada
and sustainable development monitoring and reporting

INTERPRETATION

Definitions

2. In this Act,

"appropriate Minister"

"appropriate Minister" has the meaning assigned by section 2 of the *Financial Administration Act*;

. . .

"category I department"

"category I department" means

(a) any department named in Schedule I to the *Financial Administration Act*,

(b) any department in respect of which a direction has been made under subsection 24(3), and

(c) any department, set out in the schedule;

"Commissioner"

"Commissioner" means the Commissioner of the Environment and Sustainable Development appointed under subsection 15.1(1);

. . .

"sustainable development"

"sustainable development" means development that meets the needs of the present without compromising the ability of future generations to meet their own needs;

"sustainable development strategy"

"sustainable development strategy", with respect to a category I department, means the department's objectives, and plans of action, to further sustainable development.

DUTIES

Examination

5. The Auditor General is the auditor of the accounts of Canada, including those relating to the Consolidated Revenue Fund and as such shall make such examinations and inquiries as he considers necessary to enable him to report as required by this Act;

Annual and additional reports to the House of Commons

7. (1) The Auditor General shall report annually to the House of Commons and may make, in addition to any special report made under subsection 8(1) or 19(2) and the Commissioner's report under subsection 23(2), not more than three additional reports in any year to the House of Commons

(a) on the work of his office; and,

(b) on whether, in carrying on the work of his office, he received all the information and explanations he required.

Idem (2) Each report of the Auditor General under subsection (1) shall call attention to any thing that he considers to be of significance and of a nature that should be brought to the attention of the House of Commons, including any cases in which he has observed that

(a) accounts have not been faithfully and properly maintained or public money has not been fully accounted for or paid, where so required by law, into the Consolidated Revenue Fund;

(b) essential records have not been maintained or the rules and procedures applied have been insufficient to safeguard and control public property, to secure an effective check on the assessment, collection and proper allocation of the revenue and to ensure that expenditures have been made only as authorized;

(c) money has been expended other than for purposes for which it was appropriated by Parliament;

(d) money has been expended without due regard to economy or efficiency;

(e) satisfactory procedures have not been established to measure and report the effectiveness of programs, where such procedures could appropriately and reasonably be implemented; or

(f) money has been expended without due regard to the environmental effects of those expenditures in the context of sustainable development.

STAFF OF THE AUDITOR GENERAL

Appointment of Commissioner **15.1** (1) The Auditor General shall, in accordance with the *Public Service Employment Act*, appoint a senior officer to be called the Commissioner of the Environment and Sustainable Development who shall report directly to the Auditor General.

Commissioner's duties (2) The Commissioner shall assist the Auditor General in performing the duties of the Auditor General set out in this Act that relate to the environment and sustainable development.

SUSTAINABLE DEVELOPMENT

Purpose **21.1** The purpose of the Commissioner is to provide sustainable development monitoring and reporting on the progress of category I departments towards sustainable development, which is a continually evolving concept based on the integration of social, economic and environmental concerns, and which may be achieved by, among other things,

(a) the integration of the environment and the economy;

(b) protecting the health of Canadians;

(c) protecting ecosystems;

(d) meeting international obligations;

(e) promoting equity;

(f) an integrated approach to planning and making decisions that takes into account the environmental and natural resource costs of different economic options and the economic costs of different environmental and natural resource options;

(g) preventing pollution; and

(h) respect for nature and the needs of future generations.

Petitions received

22. (1) Where the Auditor General receives a petition in writing from a resident of Canada about an environmental matter in the context of sustainable development that is the responsibility of a category I department, the Auditor General shall make a record of the petition and forward the petition within fifteen days after the day on which it is received to the appropriate Minister for the department.

Acknowledgement to be sent

(2) Within fifteen days after the day on which the Minister receives the petition from the Auditor General, the Minister shall send to the person who made the petition an acknowledgement of receipt of the petition and shall send a copy of the acknowledgement to the Auditor General.

Minister to respond

(3) The Minister shall consider the petition and send to the person who made it a reply that responds to it, and shall send a copy of the reply to the Auditor General, within

(a) one hundred and twenty days after the day on which the Minister receives the petition from the Auditor General; or

(b) any longer time, where the Minister personally, within those one hundred and twenty days, notifies the person who made the petition that it is not possible to reply within those one hundred and twenty days and sends a copy of that notification to the Auditor General.

Multiple petitioners

(4) Where the petition is from more that one person, it is sufficient for the Minister to send the acknowledgement and reply, and the notification, if any, to one or more of the petitioners rather than to all of them.

Duty to monitor

23. (1) The Commissioner shall make any examinations and inquiries that the Commissioner considers necessary in order to monitor

(a) the extent to which category I departments have met the objectives, and implemented the plans, set out in their sustainable development strategies laid before the House of Commons under section 24; and

(b) the replies by Ministers required by subsection 22(3).

Commissioner's report

(2) The Commissioner shall, on behalf of the Auditor General, report annually to the House of Commons concerning anything that the Commissioner considers should be brought to the attention of that House in relation to environmental and other aspects of sustainable development, including

(a) the extent to which category I departments have met the objectives, and implemented the plans, set out in their sustainable development strategies laid before that House under section 24;

(b) the number of petitions recorded as required by subsection 22(1), the subject-matter of the petitions and their status; and

(c) the exercising of the authority of the Governor in Council under any of subsections 24(3)to (5).

Submission and tabling of report

(3) The report required by subsection (2) shall be submitted to the Speaker of the House of Commons and shall be laid before that House by the Speaker on any of the next fifteen days on which that House is sitting after the Speaker receives it.

Strategies to be tabled

24. (1) The appropriate Minister for each category I department shall cause the department to prepare a sustainable development strategy for the department and shall cause the strategy to be laid before the House of Commons

(a) within two years after this subsection comes into force; or

(b) in the case of a department that becomes a category I department on a day after this subsection comes into force, before the earlier of the second anniversary of that day and a day fixed by the Governor in Council pursuant to subsection (4).

Updated strategies to be tabled

(2) The appropriate Minister for the category I department shall cause the department's sustainable development strategy to be updated at least every three years and shall cause each updated strategy to be laid before the House of Commons on any of the next fifteen days on which that House is sitting after the strategy is updated.

Governor in Council direction

(3) The Governor in Council may, on the recommendation of the appropriate Minister for a department not named in Schedule I to the *Financial Administration Act*, direct that the requirements of subsections (1) and (2) apply in respect of the department.

Date fixed by Governor in Council

(4) On the recommendation of the appropriate Minister for a department that becomes a category I department after this subsection comes into force, the Governor in Council may, for the purpose of subsection (1), fix the day before which the sustainable development strategy of the department shall be laid before the House of Commons.

Regulations

(5) The Governor in Council may, on the recommendation of the Minister of the Environment, make regulations prescribing the form in which sustainable development strategies are to be prepared and the information required to be contained in them.

Appendix B Report on the exercise of the Governor in Council's authority under subsections 24(3) to 24(5) of the *Auditor General Act*

As Commissioner of the Environment and Sustainable Developement, I am required to report on the exercise of the Governor in Council's authority under subsections 24(3) to (5) of the *Auditor General Act*. These provisions permit the Governor in Council, among other things, to direct that the sustainable development strategy and environmental petitions requirements apply to specific departments that would not ordinarily be subject to these requirements.

On 13 December 2003 the Prime Minister announced the creation of several new departments as part of the Changing Government initiative. In July 2004, the Governor in Council, pursuant to subsection 24(3) of the *Auditor General Act*, directed that the sustainable development strategy requirements apply to the following departments: Canada Border Services Agency, Canadian Firearms Centre, Department of Human Resources and Skills Development, International Trade Canada, and Public Service Human Resources Management Agency of Canada.

In September 2004, the Public Health Agency of Canada was added to this list.

Most of these new departments were formerly part of specific departments that were required to prepare sustainable development strategies.

Appendix C Main Points of chapters 1 to 8

Main Points—Chapter 1

Fisheries and Oceans Canada
Canada's Oceans Management Strategy

What we examined

The 1996 *Oceans Act* announced the federal government's intention to take an active co-ordinating role in oceans policy and management; it established Canada's aspirations to lead in the field. The Act's purpose was to conserve and protect our oceans' environment, ecosystems, and resources while managing those resources in ways that were economically sustainable and environmentally acceptable—in short, to ensure that our oceans are clean, safe, productive, and accessible.

We examined Fisheries and Oceans Canada's actions to implement the *Oceans Act*. We looked at its progress in developing and carrying out a national oceans strategy and integrated management plans and at its efforts to establish marine protected areas.

We also examined the Department's public reporting on the results of its oceans-management activities and on the state of the oceans.

Why it's important

The government recognized in 1994 that Canada's oceans policies and practices had been short term, piecemeal, and fragmented, and this had contributed to over-exploitation of the fisheries and the degrading of the ocean environment. For example, the Atlantic groundfish industry had collapsed, and ship-generated oil waste was affecting marine bird populations on both the east and west coasts of Canada. Implementing the 1996 *Oceans Act* was supposed to turn this worsening situation around.

However, Canada's Oceans Action Plan, recently issued by the government, reports that the health and quality of the marine environment are at risk or declining. The plan notes major declines in some fish stocks, persistent introduction of pollutants and invasive species, habitat alteration and degradation, and declining biodiversity and productivity.

Canada's oceans area is an important legacy of natural capital for future generations. Over 20 percent of Canadians live in coastal communities, and our oceans are an important source of food, transportation, recreation, and natural resources for all Canadians. The federal government has a clear responsibility to provide the careful management necessary to protect and develop Canada's vast ocean spaces and resources.

What we found

- Implementing the *Oceans Act* and subsequent oceans strategy has not been a government priority. After eight years, the promise of the *Oceans Act* is unfulfilled. Fisheries and Oceans Canada has fallen far short of meeting its commitments and targets: it has finalized no integrated management plans and has designated only two marine protected areas.

- The Department has had difficulty developing and implementing a workable and consistent approach to integrated oceans management. As a result, arrangements are not yet in place to resolve increasing conflicts among users of the oceans over access to space and resources.
- The government acknowledged in Canada's Oceans Action Plan that oceans-governance arrangements are still not up to dealing with modern-day challenges, including threats to the health of the oceans. Further, it recognized that the approach remains fragmented and exceedingly complex, lacks transparency, and focusses on solving problems as they arise. This assessment is consistent with our audit findings.
- Parliament has not been given the financial and other performance information it needs to hold the Department accountable for its *Oceans Act* responsibilities. Nor has the Department met its commitment to report periodically on the state of the oceans.
- The new oceans action plan is the government's framework for sustainably developing and managing our oceans. However, it does not address all the barriers to implementing a national oceans strategy. These include the need for strong leadership and co-ordination over the long term, adequate funding, and an accountability framework with appropriate performance measures and reporting requirements.

The Department has responded. Fisheries and Oceans Canada is in agreement with all of the audit recommendations. Its responses, which follow the recommendations in the report, indicate what actions it intends to take and when these will be completed.

Main Points—Chapter 2

Ecological Integrity in Canada's National Parks

What we examined

Parks Canada is responsible for maintaining and restoring the ecological integrity of Canada's 41 national parks. It is also responsible for fostering public understanding, appreciation, and enjoyment of national parks in ways that ensure the ecological integrity of these places for present and future generations. In addition to national parks, Parks Canada manages a system of national historic sites and a system of national marine conservation areas.

This audit looked at how well Parks Canada plans and manages selected ecological monitoring and restoration activities in 12 national parks and uses these activities to enhance public education and visitor experience. Parks Canada is required to report to Parliament on the state of Canada's national parks every two years. This audit examined the quality of the reports Parks Canada produced on the state of national parks in 1997, 1999, and 2001. We did not examine the 2003 report as it had not been released at the time of undertaking our audit.

Why it's important

Canada's national parks represent significant examples of Canada's natural heritage. National parks have benefited past and current generations and represent an important legacy to future generations. A variety of factors called "stressors" affect ecosystems, and more specifically, biodiversity and related processes in national parks. These stressors from both within and outside national parks range from overuse of parks by visitors to natural resource development along their borders. These stressors jeopardize the range of benefits Canadians get from national parks and the very reasons why they are valued.

Along with public education and partnerships, monitoring and restoration are important activities that Parks Canada uses to maintain and restore ecological integrity in national parks. Good monitoring of biodiversity, ecosystem health, and stressors provides information on the state of parks that is vital to good park management and public education. Good restoration programs, such as prescribed burning and recovery of species at risk, can help restore natural ecosystem processes in national parks and help reverse the loss of species and biodiversity.

What we found

- In the 12 parks we examined, significant issues in ecological integrity, including issues related to biodiversity, ecosystem functions, and stressors, are being addressed through monitoring and restoration activities, but gaps in coverage exist. We also found gaps in how these activities are planned and managed. For example, at the park level, the central planning document is the park management plan. However, in six of the twelve parks these plans are not up-to-date, and annual reports on the implementation of these plans are not being produced on a regular basis by all parks.
- Increasing understanding through public education is fundamental to maintaining and restoring ecological integrity. In this regard, objectives for enhancing public education through monitoring and restoration are lacking at the park level, and the results of monitoring and restoration projects are not used to full advantage in park-level communications materials.

- With new funding received in 2003 ($75 million over five years and $25 million annually thereafter), Parks Canada is implementing measures to improve monitoring and restoration and their use in enhancing public education and visitor experience. It is important that these measures be successful and consistently applied across individual parks. Good monitoring, restoration, and public education programs are essential for Parks Canada to meet its mandate of maintaining or restoring ecological integrity and fostering public awareness and enjoyment of national parks.
- The 1997 state of the parks report was relatively good in terms of setting baselines on the state of parks. However, the subsequent two reports did not make use of the potential offered by the 1997 report, making it difficult to determine how the state of parks has changed. Overall, these reports need to report more consistently on changes and trends in the state of parks over time. More information on the results of Parks Canada's actions is also needed.

Parks Canada has responded. Parks Canada has accepted our recommendations. Its responses, which follow the recommendations in the chapter, indicate the actions it intends to take.

Main Points—Chapter 3

Canadian Biodiversity Strategy
A Follow-Up Audit

What we examined

The Canadian Biodiversity Strategy was intended to be a framework for action to, among other things, conserve and sustainably use biological diversity or "biodiversity." The strategy was endorsed in 1996 by federal, provincial, and territorial ministers. This follow-up audit is our third audit since 1998 of the federal government's implementation of the strategy.

Why it's important

Biological diversity—or biodiversity—refers to the variety of life in all its forms; it includes ecosystem diversity, species diversity, and genetic diversity. Biodiversity is essential to the health of the planet and the well-being of its inhabitants. It allows for and promotes healthy vegetation (including crops), clean air and clean water, and directly benefits Canadians' health and economic prosperity. Biodiversity faces a number of threats, including loss of habitat, invasive species that threaten native species, and overexploitation of plants and animals. Canada has made domestic and international commitments to conserve and sustainably use this country's biological diversity, using the Canadian Biodiversity Strategy as the basis for action.

What we found

- Overall, the federal government's progress in implementing key aspects of the Canadian Biodiversity Strategy is unsatisfactory. Nearly 10 years after endorsement of the strategy, momentum has stalled on several fronts. Problems identified in our previous two audits of the strategy persist, and several commitments to deliver on biodiversity priority areas have not been met.

- The federal government still lacks a coherent plan for implementing the strategy, and while it has made implementation efforts, the government does not know how well these are meeting the strategy's goals.

- Commitments to improve Canada's capacity to understand its biodiversity and manage biodiversity information have not been fulfilled, despite numerous calls to improve these areas.

- There is no consolidated, comprehensive report on the state of biodiversity in Canada. While the government is working toward such reporting and reporting is taking place in various sectors, this is the third audit in which we have pointed out that there is no overall picture of the state of biodiversity in Canada or how it is changing over time. This lack of information limits the federal government's ability to help conserve biodiversity, use it sustainably, and reduce its loss.

Environment Canada has responded. Environment Canada has accepted our recommendation and indicated the actions it intends to take to address the recommendation. Its detailed response follows the recommendation included in the chapter.

Main Points—Chapter 4

Safety of Drinking Water
Federal Responsibilities

What we examined

In Canada, the responsibility for ensuring the safety of drinking water is shared. The provincial and territorial governments have the main legislative responsibility for regulating the provision of safe drinking water to the public. The federal government has responsibilities for the safety of drinking water provided in First Nations communities; at military bases, national parks, and federal facilities; and on transportation conveyances, such as passenger trains, aircraft, and cruise ships travelling between provinces and internationally. A related area under federal leadership is the development of the Guidelines for Canadian Drinking Water Quality.

This audit examined the process the federal government uses to develop the Guidelines for Canadian Drinking Water Quality. It also looked at whether the government is complying with its legal obligation under the *Canada Labour Code* to make sure the drinking water provided to its employees meets these guidelines. To do this, we assessed whether six key federal departments and agencies comply with requirements to test drinking water for bacteria, as this testing is critical to protect human health. In addition, we examined Health Canada's inspection of drinking water on transportation conveyances.

Chapter 5 of this Report focusses on drinking water in First Nations communities.

Why it's important

Federal responsibilities for drinking water can have an impact on millions of people, including employees and travellers. Safe drinking water is free of microbiological contaminants and contains chemical contaminants at levels that do not harm human health. Contaminated drinking water can have potentially dire consequences for public health, as became tragically evident in Walkerton, Ontario in 2000.

The Guidelines for Canadian Drinking Water Quality are important for protecting the health of Canadians because they set out the contaminants that every water system (public, semi-public, and private) should strive to eliminate or reduce to acceptable levels in order to provide the cleanest, safest, and most reliable supply of drinking water possible. The Guidelines establish acceptable limits on chemical, microbiological, physical, and radiological characteristics of potable water.

What we found

- To develop the Guidelines for Canadian Drinking Water Quality, Health Canada leads a process with the provinces and territories that is based on risk, science, consultation, and transparency. However, this process is consistently slow. It often takes five years or more to develop new guidelines or to review existing ones. In the 2002 Speech from the Throne, the government made a commitment to accelerate its work with the provinces on improving the Guidelines. Of 83 existing chemical and physical guidelines, about 50 may need to be updated to reflect current science. At the present pace, however, it could take at least 10 years to deal with this backlog. Should emerging contaminants be added to this list, the backlog could worsen.

- Although the six federal departments and agencies we looked at are all subject to the *Canada Labour Code,* they have different policies, procedures, and requirements for safe drinking water that vary from comprehensive to incomplete or unclear. The result is a mix of bacteriological testing regimes at the 35 sites we selected for our audit. Such a range of compliance with the Guidelines for Canadian Drinking Water Quality points to the lack of central guidance in areas of federal responsibility. At sites where bacteriological testing detected contamination, the responsible departments have taken remedial action.
- Under the Potable Water Regulations for Common Carriers, Health Canada has the obligation to inspect water quality on passenger trains, aircraft, and cruise ships. We found that the Department inspects potable water on cruise ships and trains but not on aircraft, due to funding issues. Therefore, Health Canada cannot assure the millions of Canadian travellers that potable water on aircraft is safe.
- The 2004 Federal Water Framework is a first step toward a coherent federal approach to dealing with water matters, including those related to human health. However, even though in 2003 the government declared water to be a sustainable development priority, the current status of the Federal Water Framework is unclear and its future is uncertain. Senior officials who prepared the Framework have not met for over a year, and the next steps for its use have not been clearly established.

The departments have responded. All the departments included in this audit agreed to our recommendations. All departments except one provided satisfactory responses describing future actions needed to address our recommendations. However, the response provided by Environment Canada on the Federal Water Framework does not fully address the specifics of our recommendation.

Main Points—Chapter 5

Drinking Water in First Nations Communities

What we examined

Indian and Northern Affairs Canada (INAC) and Health Canada provide funding and support to assist First Nations in making drinking water available to their communities. INAC covers the costs of designing, constructing, and repairing water systems as well as most operation and maintenance costs. Health Canada supports First Nations in the monitoring and testing of tap water to demonstrate that it is safe for drinking. Through funding arrangements, First Nations are responsible for the construction, upgrade, and day-to-day management of water systems. We examined whether the programs and funding of both departments have helped First Nations communities provide residents with access to drinking water comparable with that of other Canadians living in communities of a similar size and location. We visited six First Nations communities during this audit.

We also looked at how well the First Nations Water Management Strategy is being implemented. This five-year strategy was introduced in 2003 to substantially improve the quality and safety of drinking water on reserves.

Why it's important

Access to safe drinking water is vital to the health of all Canadians, including the approximately half million people living in some 600 First Nations. In 1995, Health Canada and INAC estimated that one quarter of the water systems in First Nations communities posed potential health and safety risks to the people they served. In 2001, INAC found a significant risk to the quality or safety of drinking water in three quarters of the systems. Between 1995 and 2003, the federal government spent about $1.9 billion to help First Nations communities provide safe drinking water and wastewater services. In 2003, the government made drinking water safety in First Nations communities a priority and approved a budget of $600 million over five years for the First Nations Water Management Strategy.

What we found

- When it comes to the safety of drinking water, residents of First Nations communities do not benefit from a level of protection comparable to that of people who live off reserves. This is partly because there are no laws and regulations governing the provision of drinking water in First Nations communities, unlike other communities. INAC and Health Canada attempt to ensure access to safe drinking water in First Nations communities through their policies, administrative guidelines, and funding arrangements with First Nations. This approach does not cover all the elements that would be found in a regulatory regime for drinking water, and it is not implemented consistently.

- Despite the hundreds of millions in federal funds invested, a significant proportion of drinking water systems in First Nations communities continue to deliver drinking water whose quality or safety is at risk. Although access to drinking water has improved, the design, construction, operation, and maintenance of many water systems is still deficient. Moreover, to a significant extent, the success of the First Nations Water Management Strategy depends on INAC and Health Canada addressing the management weaknesses we have noted.

- The technical help available to First Nations to support and develop their capacity to deliver safe drinking water is fragmented. Given that most First Nations communities have fewer than 500 residents, and that providing drinking water has become more complex, the development of institutions that can provide ongoing technical support is critical to a continuing supply of safe drinking water for these communities.

The departments have responded. Indian and Northern Affairs Canada and Health Canada have fully accepted all the recommendations, except for the one on implementation of a regulatory regime. Instead, the departments have stated that they will fully explore, in consultation with First Nations, the options and feasibility of a regulatory regime. The departments' responses are included in the chapter.

Main Points—Chapter 6

Green Procurement

What we examined

Green procurement involves buying goods and services that are less harmful to human health and the environment than competing products that serve the same purpose. We examined efforts to promote and support green procurement across the federal government, including guidance to departments on how to address green procurement in their sustainable development strategies. We also looked at the approach taken by eight departments and agencies in their strategies and the progress made on specific commitments by three departments.

Why it's important

The federal government is one of the largest purchasers of goods and services in Canada, spending a reported $13 billion each year. This means that greening federal procurement can deliver substantial benefits. The government can significantly reduce the environmental burdens of its operations by buying goods that are energy efficient, for example, or that are produced without using or releasing toxic substances, or that are easily disassembled for reuse and recycling. Green procurement can also boost the availability of green products and services and stimulate innovation, in line with the government's promotion of sustainability as a key to Canada's competitiveness.

Recognizing these benefits, the federal government has made numerous commitments to green its procurement, dating back to 1992. Several recent developments, such as the government's decision to increase central management of procurement, provide new opportunities to take effective action.

Significant progress on green procurement requires clear government-wide direction on what is expected, who is accountable, and how progress will be measured, as well as practical support through expert advice and training. Progress also depends on clear commitments and follow-through by individual departments.

What we found

- Important progress on greening procurement is possible, as shown by initiatives both within and outside the federal government. Yet after more than a decade of promises, the federal government is still not using the potential of green procurement as a tool to achieve sustainable development objectives.

- Central direction on green procurement is missing. Instructions to develop a government-wide approach to green procurement were first given in 1994, but there is still no federal strategy or policy. In the 2004 Speech from the Throne, the government recommitted to develop and implement a government-wide green procurement policy by 2006. But this requires considerable work, and no full-time personnel have been dedicated to it.

- Some of the key federal documents on the roles and responsibilities of buyers and suppliers do not address green procurement. Similarly, the federal government has not effectively used sustainable development strategies as a way of advancing green procurement.

- There is currently no credible basis to assess government-wide progress on green procurement.

- Public Works and Government Services Canada (PWGSC), the department with the most significant government-wide procurement responsibilities, has taken some initiatives to raise awareness about green procurement. But it has not made significant progress in greening the procurement services it offers to federal departments and agencies. For example, PWGSC's standing offers are used by departments and agencies for routine purchasing of common goods and services. But fewer than two percent of the standing offers on PWGSC's Web-based index are designated as green.

Public Works and Government Services has responded, on behalf of the responsible departments and agencies. It has agreed with the recommendations. Its consolidated response, including the actions it plans to take, can be found at the end of the chapter.

Main Points—Chapter 7

Sustainable Development Strategies

What we examined

Every three years, many federal departments and agencies (currently over 30) are required to submit a sustainable development strategy to Parliament. We examined whether the government gave adequate government-wide direction on preparing their 2004 strategies. We looked at the work of a committee of deputy ministers that the Privy Council Office had tasked to provide that direction and at how well selected departments have incorporated the direction into their strategies.

We assessed how well the 2004 strategies met selected expectations from the Commissioner's March 2003 *Sustainable Development Strategies—Making a Difference*, which the government had endorsed. We also assessed actions by nine departments to implement 10 commitments they had made in their 2001 and 2004 strategies (other commitments are discussed in chapters 1, 4, and 6 of this Report). And we report on the federal government's actions to implement six international commitments it made at the 2002 World Summit on Sustainable Development in Johannesburg.

Why it's important

Sustainable development is based on the efficient and environmentally responsible use of natural, human, and economic resources. This includes sustaining our natural resources, protecting the health of Canadians and ecosystems, and improving our quality of life and well-being.

The government has said that departments' strategies are an important tool for advancing its sustainable development agenda. They set out specific commitments for departments, and Parliament can hold ministers accountable for how well their departments meet the commitments. The government has committed over the years to develop a federal sustainable development strategy that would help ensure good co-ordination among departmental strategies.

What we found

- **Government-wide direction.** The committee of deputy ministers responsible for overseeing sustainable development strategies could not agree on priorities for the 2004 strategies, leaving departments with little approved direction on how to co-ordinate their strategies. Nor did the committee develop the promised federal strategy; so Canadians and Parliament have no clear idea of the government's overall plan for sustainable development, how it will carry out the plan, and what progress it has made. Furthermore, for over a year there have been no significant efforts to provide direction for the next strategies, due in December 2006. During this critical time, the committee of deputy ministers ceased activities.

- **Quality of the 2004 strategies.** While the overall quality of strategies has improved somewhat since 2001, the quality of the 2004 strategies still varies widely. Every strategy has room for improvement.

- **Action on strategy commitments.** With one exception, departments have made some progress, if not satisfactory progress, toward meeting the 10 strategy commitments we looked at, many of which are only first steps toward sustainability. The exception is Transport Canada's lack of progress in identifying discharges of effluent and waste at major Canadian ports. Consequently, the discharges at the 19 Canada Port Authorities have not been determined. Depending on the quantities released, sewage effluent and other chemical discharges can negatively affect aquatic ecosystems and human health.

- **Action on international commitments.** The government still does not have an action plan for its 2002 World Summit commitments. The federal government risks not meeting three of the six commitments we examined because progress is slow in some areas and there is no information on progress in others.

The departments have responded. The Privy Council Office and Environment Canada have responded to our recommendations. The actions they are taking or plan to take are set out after each recommendation in the chapter.

Main Points—Chapter 8

Environmental Petitions

What we examined

This is the annual report of the Commissioner of the Environment and Sustainable Development to Parliament on the environmental petitions process as required by the *Auditor General Act*. It reports on new petitions received between 1 July 2004 and 30 June 2005.

We audited selected responses to previous environmental petitions to determine whether action had been taken by Natural Resources Canada to update the *Nuclear Liability Act*, by Environment Canada to establish guidelines for designating a species at risk, and by Agriculture and Agri-Food Canada and Environment Canada to reduce the environmental impacts of hog farming.

Why it's important

The environmental petitions process allows Canadians to formally present their concerns about environmental issues to federal ministers and obtain a response. The process allows both citizens and organizations to ask that ministers investigate environmental problems, explain federal policy, or examine the enforcement of environmental legislation.

Petitions have resulted in commitments by ministers and action by departments on environmental issues. For the petitions process to work effectively for Canadians, petitioners need to clearly present the issues and questions that concern them and make sure their facts are correct. Departments must respond to petitions within 120 days and ensure that the responses clearly address all issues raised in the petitions.

Monitoring and auditing petition responses allows us to further examine issues that Canadians have raised and that may not have otherwise been brought to our attention. Through these audits, we assess whether federal ministers are meeting commitments to act on issues raised in petitions.

What we found

- **Report on petitions process.** Statements and commitments made by federal ministers address important issues raised by Canadians through the petitions process. However, in those responses we audited this year, we found that progress on addressing the issues has been slow.

- **Insurance for nuclear operators.** In his response to two petitions, the Minister of Natural Resources committed to updating the *Nuclear Liability Act* to increase the mandatory amount of insurance carried by operators of nuclear facilities to compensate those who may suffer injury or damage in the event of an accident. However, the Act has not yet been revised. As a result, insurance coverage in Canada remains at a level established almost 30 years ago and is considerably lower than the coverage in other major industrialized nations.

- **Guidelines for listing species at risk.** The *Species at Risk Act* was introduced in 2002 to protect and recover species at risk. In response to a petition, the Minister of the Environment committed to establishing guidelines for deciding which species to protect by designating them at risk. Environment Canada has indicated that these guidelines will not be in place until 2006. In the meantime, decisions are being made without the benefit of guidelines intended to make the government's decision-making process more consistent and transparent.

- **Impacts of hog farming.** As a result of two petitions, we audited actions by Agriculture and Agri-Food Canada and Environment Canada to reduce the environmental impacts of hog farming. We found that the departments do not know if their programs and activities are reducing those impacts. For example, Environment Canada cannot yet demonstrate that its efforts have increased compliance with the pollution prevention provisions of the *Fisheries Act*. Agriculture and Agri-Food Canada has yet to clarify its strategic approach to address the environmental impacts of hog farming. Although the Department has made progress in measuring the impacts of agriculture on the environment, it is not effectively communicating or monitoring the implementation of its beneficial management practices for hog farming.

The departments have responded. Agriculture and Agri-Food Canada, Environment Canada, and Natural Resources Canada have accepted our recommendations. Their responses, which follow the recommendations in the chapter, indicate the actions departments will take and when they will be undertaken.

Report of the
Commissioner of the Environment and Sustainable Development to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the
Commissioner of the Environment and Sustainable Development
to the House of Commons

Chapter 1
Fisheries and Oceans Canada—
Canada's Oceans Management Strategy

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

1

Fisheries and Oceans Canada

Canada's Oceans Management Strategy

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

Canada's oceans 3
New approaches to managing ocean activities 5
Canada's *Oceans Act*, a global benchmark 5
Canada's Oceans Strategy and Oceans Action Plan 6
Focus of the audit 6

Observations and Recommendations 7

Modern oceans management 7

A national oceans strategy 8

History of Canada's oceans legislation and policy 8
Slow to develop a national oceans strategy 9
Canada's Oceans Action Plan focusses on implementation 10
Barriers to implementation exist 10

Integrated management, marine protected areas 12

Progress on integrated management has been very slow 12
Lack of progress on a national system of marine protected areas 15
Sustainable development strategy commitments not met 20
Delivering on Canada's international oceans commitments 21

Accountability for implementation 23

Standing Committee reviewed the *Oceans Act* 23
Promise to report on state of the oceans not kept 24
Poor reporting to Parliament and the public 25

Conclusion 27

About the Audit 29

Appendices

A. Lessons learned from international experiences 31
B. List of recommendations 33

Fisheries and Oceans Canada
Canada's Oceans Management Strategy

Main Points

What we examined

The 1996 *Oceans Act* announced the federal government's intention to take an active co-ordinating role in oceans policy and management; it established Canada's aspirations to lead in the field. The Act's purpose was to conserve and protect our oceans' environment, ecosystems, and resources while managing those resources in ways that were economically sustainable and environmentally acceptable—in short, to ensure that our oceans are clean, safe, productive, and accessible.

We examined Fisheries and Oceans Canada's actions to implement the *Oceans Act*. We looked at its progress in developing and carrying out a national oceans strategy and integrated management plans and at its efforts to establish marine protected areas.

We also examined the Department's public reporting on the results of its oceans-management activities and on the state of the oceans.

Why it's important

The government recognized in 1994 that Canada's oceans policies and practices had been short term, piecemeal, and fragmented, and this had contributed to over-exploitation of the fisheries and the degrading of the ocean environment. For example, the Atlantic groundfish industry had collapsed, and ship-generated oil waste was affecting marine bird populations on both the east and west coasts of Canada. Implementing the 1996 *Oceans Act* was supposed to turn this worsening situation around.

However, Canada's Oceans Action Plan, recently issued by the government, reports that the health and quality of the marine environment are at risk or declining. The plan notes major declines in some fish stocks, persistent introduction of pollutants and invasive species, habitat alteration and degradation, and declining biodiversity and productivity.

Canada's oceans area is an important legacy of natural capital for future generations. Over 20 percent of Canadians live in coastal communities, and our oceans are an important source of food, transportation, recreation, and natural resources for all Canadians.

The federal government has a clear responsibility to provide the careful management necessary to protect and develop Canada's vast ocean spaces and resources.

What we found

- Implementing the *Oceans Act* and subsequent oceans strategy has not been a government priority. After eight years, the promise of the *Oceans Act* is unfulfilled. Fisheries and Oceans Canada has fallen far short of meeting its commitments and targets: it has finalized no integrated management plans and has designated only two marine protected areas.
- The Department has had difficulty developing and implementing a workable and consistent approach to integrated oceans management. As a result, arrangements are not yet in place to resolve increasing conflicts among users of the oceans over access to space and resources.
- The government acknowledged in Canada's Oceans Action Plan that oceans-governance arrangements are still not up to dealing with modern-day challenges, including threats to the health of the oceans. Further, it recognized that the approach remains fragmented and exceedingly complex, lacks transparency, and focusses on solving problems as they arise. This assessment is consistent with our audit findings.
- Parliament has not been given the financial and other performance information it needs to hold the Department accountable for its *Oceans Act* responsibilities. Nor has the Department met its commitment to report periodically on the state of the oceans.
- The new oceans action plan is the government's framework for sustainably developing and managing our oceans. However, it does not address all the barriers to implementing a national oceans strategy. These include the need for strong leadership and co-ordination over the long term, adequate funding, and an accountability framework with appropriate performance measures and reporting requirements.

The Department has responded. Fisheries and Oceans Canada is in agreement with all of the audit recommendations. Its responses, which follow the recommendations in the report, indicate what actions it intends to take and when these will be completed.

Introduction

1.1 The vastness of the oceans and their historical inaccessibility gave us the sense that their abundance could not be depleted. However, our resource use has had serious negative impacts on the state of our oceans, and the effects of human activity are becoming increasingly evident. The United Nations advisory body, the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, issued *A Sea of Troubles* in January 2001. It warned about the worsening condition of the world's oceans.

> The state of the world's seas and oceans is deteriorating. Most of the problems identified decades ago have not been resolved, and many are worsening. New threats keep emerging. The traditional uses of the seas and coasts and the benefits that humanity gets from them have been widely undermined.

1.2 The federal government has recently reported that this is also the situation in Canada.

> All indicators point to the reality that the health and quality of the marine environment are at risk or declining . . . . The current approach has resulted in failing oceans health, including some declining fish stocks and increasing fluctuations of stocks, increasing numbers of marine species at risk and invasive species, marine habitat loss, and declining biodiversity.
>
> Canada's Oceans Action Plan, May 2005

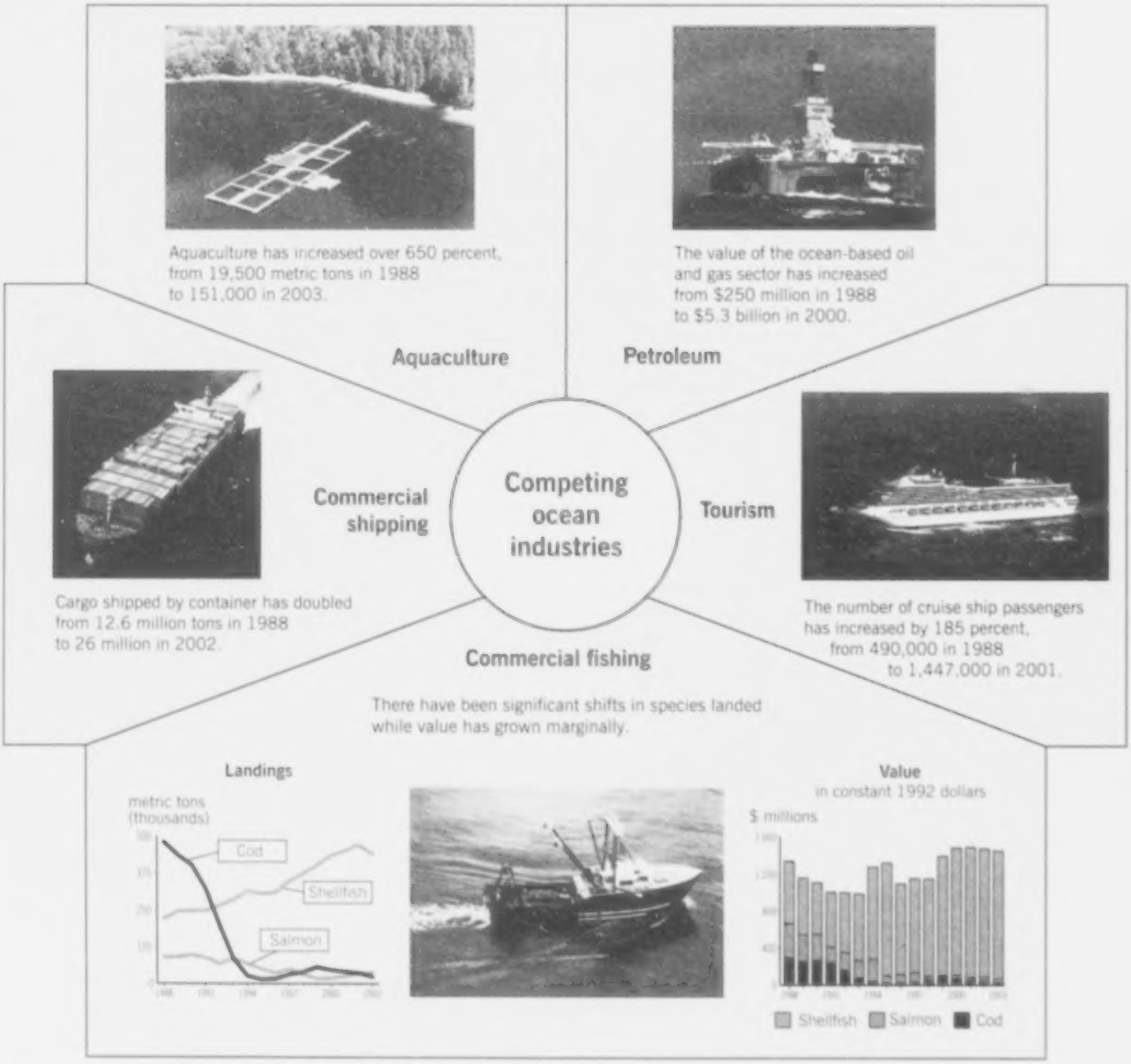
Canada's oceans

1.3 Canada is a coastal nation bordering on the Arctic, Atlantic, and Pacific oceans. It has the world's longest coastline at over 243,000 kilometres. Canada's extensive marine area of 5.87 million square kilometres—more than half of our land mass—is one of the largest in the world. Our oceans represent a large portion of Canada's natural capital and are an important legacy for future generations.

1.4 For Canadians, oceans are a source of food, transportation, recreation, and natural resources, such as oil and gas. However, people affect the oceans through land- and sea-based pollution, introduced alien species, negative coastal development, overfishing, climate change, and other practices that destroy oceans habitats. Ocean resources are viewed as the common property of all Canadians; therefore, only the government can speak on their behalf and protect them for the long-term use of Canadians.

1.5 Traditional ocean industries, such as the fishery and shipping, are now competing for access to our oceans with non-traditional industries, such as oil and gas, aquaculture, and tourism (Exhibit 1.1). These new ocean industries have enormous potential to contribute to the economies of coastal communities. Fisheries and Oceans Canada's current estimate of $23 billion as the economic impact of ocean activities could increase substantially.

Exhibit 1.1 **New and traditional industries compete for ocean space and resources**


Competing ocean industries
Aquaculture
Petroleum
Commercial shipping
Tourism
Commercial fishing
Landings
metric tons (thousands)
500
375
250
125
0
1988
1991
1994
1997
2000
2003
Cod
Shellfish
Salmon
Value
in constant 1992 dollars
$ millions
1,600
1,200
800
400
0
1988
1991
1994
1997
2000
2003
Shellfish
Salmon
Cod

Aquaculture has increased over 650 percent, from 19,500 metric tons in 1988 to 151,000 in 2003.

The value of the ocean-based oil and gas sector has increased from $250 million in 1988 to $5.3 billion in 2000.

Cargo shipped by container has doubled from 12.6 million tons in 1988 to 26 million in 2002.

The number of cruise ship passengers has increased by 185 percent, from 490,000 in 1988 to 1,447,000 in 2001.

There have been significant shifts in species landed while value has grown marginally.

Source: Fisheries and Oceans Canada, Transport Canada, and Statistics Canada

New approaches to managing ocean activities

1.6 As the use of the oceans has grown, laws and structures for managing these activities have evolved around specific industry sectors. Management processes that allocate resources and resolve user conflicts have not responded to the complexity and interconnectedness of ocean ecosystems.

1.7 The 1992 United Nations Conference on Environment and Development adopted Agenda 21, a plan for achieving sustainable development at the global level. Chapter 17 of Agenda 21 called for new integrated management approaches to the sustainable development of the oceans.

1.8 Some examples of potential benefits from integrated oceans management include

- resolving oceans-use conflicts—where pipelines or cables are to be placed in or near traditional fishing areas, an integrated approach would identify routings that minimize the impact on the fishery;
- creating opportunities for, and enabling the potential use of ocean resources—seabed mapping can be used to identify opportunities for new or existing industries;
- limiting and mitigating the negative impacts of human use of ocean resources—shipping traffic lanes can be rerouted to avoid areas where endangered marine mammals exist; and
- identifying priorities for management and science activities—using risk assessment, limited science and management resources can be invested in high-risk or high-opportunity areas.

Canada's *Oceans Act*, a global benchmark

1.9 On 26 September 1995, the Minister of Fisheries and Oceans addressed the House of Commons on the second reading of the *Oceans Act*:

> For all of the excellent co-operation that went into establishing oceans jurisdictions, the truth is that Canada's policies for actual management of our oceans areas have been piecemeal, fragmented and scattered. The same spirit of partnership, co-ordination, co-operation and innovation that enabled Canada to gain authority over ocean resources must now be used to manage those resources.

The 1996 *Oceans Act* came into force 31 January 1997, making Canada the first country to have comprehensive oceans-management legislation.

Canada's Oceans Strategy and Oceans Action Plan

1.10 In July 2002, the government released Canada's Oceans Strategy, a policy framework for the protection and sustainable use of the marine environment. The government announced an oceans action plan in speeches from the Throne in February and October 2004.

1.11 No new funding was provided for implementation of the *Oceans Act*, Part II, Oceans Management Strategy (hereafter referred to as the *Oceans Act*) or Canada's Oceans Strategy. Fisheries and Oceans Canada estimates that, over the past eight years, it has redirected about $100 million from its other operations to fund its activities in support of the Act and the Strategy. These activities included establishing an oceans organization with roughly 110 employees in Ottawa and in the Department's six regions.

Focus of the audit

1.12 The audit scope is defined by the *Oceans Act*. We examined Fisheries and Oceans Canada's role in developing and implementing a national oceans strategy, integrated management planning, and marine protected areas. In addition, we examined the actions taken on oceans commitments made by the government internationally, by the government in its response to the October 2001 Report on the *Oceans Act* from the Standing Committee on Fisheries and Oceans, and by the Department in its *2001–2003 Sustainable Development Strategy*.

1.13 We examined recent international developments on modern oceans management, including the review of approaches in several other jurisdictions, concentrating primarily on Australia. The lessons learned from this review are in Appendix A.

1.14 For more information on the objectives, scope, approach, and criteria see **About the Audit**.

Observations and Recommendations

Modern oceans management

1.15 **An emerging concept.** The 1996 *Oceans Act* established Canada's aspiration to be a world leader in oceans issues and provided the foundation for modern oceans management. However, the complexity of applying modern oceans-management concepts should not be underestimated. Many countries are contemplating how they will implement these concepts.

1.16 **Progress in implementing the *Oceans* Act.** Our audit examined three aspects of the *Oceans Act* where the Minister of Fisheries and Oceans has a leadership role:

- Lead and facilitate the development and implementation of an oceans-management strategy based on the principles of sustainable development, integrated management of ocean activities, and the precautionary approach. While the national oceans strategy has been developed, no department has been assigned lead responsibility for co-ordinating its implementation and reporting on progress. Our observations begin at paragraph 1.21.
- Lead and facilitate the development and implementation of plans for the integrated management of activities affecting Canada's oceans. Work is underway in five large ocean management areas; no plans have been finalized. Our observations begin at paragraph 1.31.
- Lead and co-ordinate the development and implementation of a national system of marine protected areas. Little progress has been made on a national system, and only two marine protected areas have been designated under the *Oceans Act*. Our observations begin at paragraph 1.41.

1.17 Canada's Oceans Strategy defines integrated management as

> A commitment to planning and managing human activities in a comprehensive manner while considering all factors necessary for the conservation and sustainable use of marine resources and the shared use of ocean spaces.

1.18 We found that Canada has had great difficulty moving from this conceptual definition to practical implementation. We are concerned that the government has not made implementation of the *Oceans Act* a priority.

A national oceans strategy

History of Canada's oceans legislation and policy

1.19 The responsibility of Fisheries and Oceans Canada for policy and program co-ordination of oceans was originally established by the *Department of Fisheries and Oceans Act* (1979). The Oceans Policy for Canada and the Arctic Marine Conservation Strategy, both issued in 1987, expanded the Department's responsibilities. See Exhibit 1.2 for a chronology of domestic and international oceans events.

Exhibit 1.2 **Oceans management—events affecting Canada**

Canada		International
The Constitution Act, 1867, Section 91	1867	
Department of Fisheries and Oceans Act	1979	
	1985	Canada established the International Centre for Ocean Development (closed in 1993).
Oceans Policy for Canada and the Arctic Marine Conservation Strategy	1987	
	1992	United Nations Conference on Environment and Development—Agenda 21 adopted
A Vision for Ocean Management	1994	United Nations Convention on the Law of the Sea (1982) came into force.
	1995	United Nations Convention on Biological Diversity—Jakarta Mandate on Marine and Coastal Biological Diversity adopted
Oceans Act	1996	
Policy and National Framework for Establishing and Protecting Marine Protected Areas	1999	
Canada's Oceans Strategy and Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada	2002	United Nations World Summit on Sustainable Development—Johannesburg Plan of Implementation adopted
Canada ratifies the United Nations Convention on the Law of the Sea.	2003	
	2004	Arctic Council's Arctic Marine Strategic Plan issued
Canada's Oceans Action Plan and Canada's Federal Marine Protected Areas Strategy	2005	

1.20 In November 1994, the Minister of Fisheries and Oceans issued *A Vision for Ocean Management*, which highlighted the need for an oceans-management strategy and oceans legislation. Following an extensive period of consultation and parliamentary committee debate, the 1996 *Oceans Act* came into force 31 January 1997.

Slow to develop a national oceans strategy

1.21 Fisheries and Oceans Canada spent the next five years developing a national oceans strategy and in July 2002, Canada's Oceans Strategy was released as a policy of the Government of Canada.

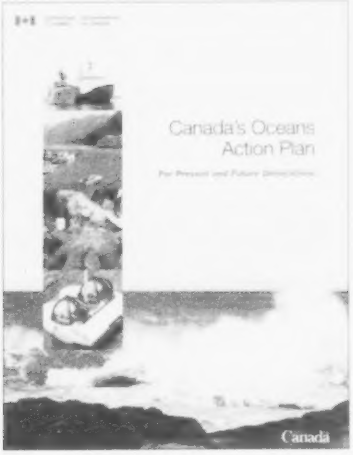
1.22 **Results to be achieved not well defined.** The strategy makes the achievement of the three identified outcomes—understanding and protecting the environment, supporting sustainable economic activity, and international leadership—a shared responsibility of all departments and agencies that have oceans responsibilities. The strategy specifies 55 existing and new activities that were to be implemented over a four-year period by the approximately 20 departments and agencies involved. However, results expectations and responsible departments were not specified. Fisheries and Oceans Canada did not finalize the accountability framework called for by the strategy, and reporting against the strategy's outcomes has not occurred. While individual departments and agencies are responsible for reporting on their oceans-related activities, there is no consolidated reporting on the results associated with the strategy's 55 activities.

Accountability framework—A blueprint for managers to plan, measure, evaluate, and report on results through the life cycle of a policy, program, or initiative.

1.23 **Oceans governance.** The 2002 strategy called for governance arrangements to enhance co-ordinated, collaborative decision making across the federal government and with other levels of government. However, the strategy was not specific about the nature of these arrangements, nor did it provide specific responsibility for leadership on this matter.

1.24 We observed two new oceans governance arrangements. An oceans task group was created in 2001 under the Canadian Council of Fisheries and Aquaculture Ministers as a federal, provincial, and territorial forum contributing to the development and implementation of Canada's Oceans Strategy. In 2004, Canada and British Columbia signed a memorandum of understanding on implementing Canada's Oceans Strategy on the Pacific coast.

1.25 The strategy does not assign a co-ordinating and reporting responsibility to any specific department. However, we noted that the *Oceans Act* does oblige the Minister of Fisheries and Oceans to lead and facilitate the implementation of an oceans-management strategy.



Canada's Oceans
Action Plan

For Present and Future Generations

Canada

Canada's Oceans Action Plan was released in May 2005.

Canada's Oceans Action Plan focusses on implementation

1.26 In April 2003, the Prime Minister appointed an oceans research fellow with responsibilities for promoting the implementation of Canada's Oceans Strategy. In December 2004, the government approved Canada's Oceans Action Plan in principle and, in the February 2005 Budget, provided $28.4 million over two years for implementing Phase I of the Plan.

1.27 Interdepartmental committees for deputy ministers and assistant deputy ministers, supported by working groups, were established in 2004 to further develop and facilitate collaboration on the plan. Part of this work includes the development of an accountability framework to track and report on Phase I activities and results.

1.28 The plan, released to the public in May 2005, observed that current oceans-governance arrangements are still exceedingly complex, lack transparency, and focus on solving problems after they appear. This assessment is consistent with our audit findings.

Barriers to implementation exist

1.29 It is encouraging to see the government's intention to implement a national oceans strategy. However, we believe that barriers to effective implementation exist.

- The interdepartmental-committee process is a means for participating federal departments and agencies to influence the development of Canada's Oceans Action Plan. It is not clear that the interdepartmental committees will provide the effective governance required for successful implementation. Several such committees with similar oceans mandates have come and gone in the past. The complex nature of these issues calls for leadership, co-ordination, and collaboration, which are difficult for interdepartmental committees alone to provide over the long term.
- The role of Fisheries and Oceans Canada in the implementation of Canada's Oceans Strategy and Canada's Oceans Action Plan has become unclear. The Minister of Fisheries and Oceans has a leadership mandate under the *Oceans Act*. Is the Department, through its Oceans Directorate, properly structured to play this leadership role? Can a department that has historically dedicated most of its resources to managing one of the key ocean-sector industries—the fishery—transform itself to represent and integrate a broader oceans interest? These are difficult questions that must be answered.

- The Department's other major legislation, the *Fisheries Act*, calls for the Minister of Fisheries and Oceans to take an active and direct role in managing this sector. This is quite different from the integrating and collaborative approach of the *Oceans Act*. The Department agrees that these, at times, competing roles are difficult to manage successfully but believes that it is possible to do so.

- The government has established short-term outputs for Canada's Oceans Action Plan, but performance expectations have yet to be established. An accountability framework is in development that will establish the roles and responsibilities of all participating departments and agencies and the means for results to be measured, evaluated, and reported.

- Adequate funding is necessary to achieve results, and the February 2005 Budget is the initial step to address this requirement. However, the current commitments that Fisheries and Oceans Canada made were based on plans that anticipated a higher-level of funding.

Horizontal initiative — [illegible]

1.30 Recommendation. Fisheries and Oceans Canada should, through its Treasury Board submission on the Oceans Action Plan Phase I, have Canada's Oceans Action Plan recognized and managed as a government horizontal initiative. Consistent with the *Oceans Act*, Fisheries and Oceans Canada, in collaboration with participating departments, should lead and facilitate the development and implementation of action plan initiatives. Working with the Treasury Board Secretariat, the Department should also co-ordinate the reporting of results achieved.

Fisheries and Oceans Canada's response. [illegible]

[illegible]

Led and facilitated by Fisheries and Oceans Canada, the seven funded departments and agencies under Phase I of the OAP developed a Treasury Board submission proposing 18 initiatives over a two-year period. They are now working together to implement these initiatives.

Fisheries and Oceans Canada, working closely with the Treasury Board Secretariat, will co-ordinate the development of the Expanded Oceans Information Framework by spring 2006. The framework will measure and report on the progress and results of the 18 initiatives. The framework will contribute to the scoping and planning of Phase II of the OAP by fall 2006.

Fisheries and Oceans Canada has led the development of an interdepartmental results-based management and accountability framework with the co-operation of its Phase I partners and the Treasury Board Secretariat. The OAP results information will be reported in Fisheries and Oceans Canada's annual report on plans and priorities (spring) and performance report (fall).

Integrated management, marine protected areas

Progress on integrated management has been very slow

1.31 By most measures, the progress that Fisheries and Oceans Canada has made to develop plans for the integrated management of coastal and ocean areas has been very slow. The Department's *2001–2003 Sustainable Development Strategy* planned to have three integrated management plans in place by 2002. The 2005–2006 Strategy and the 2005–2010 Strategic Plan state that the Department will have five plans in place by the end of 2007. To date, there are no plans in place, although one draft plan exists.

1.32 We examined three of the five integrated management planning processes, one from each ocean, where the Department is now focussing its efforts and funding (Exhibit 1.3). The three were

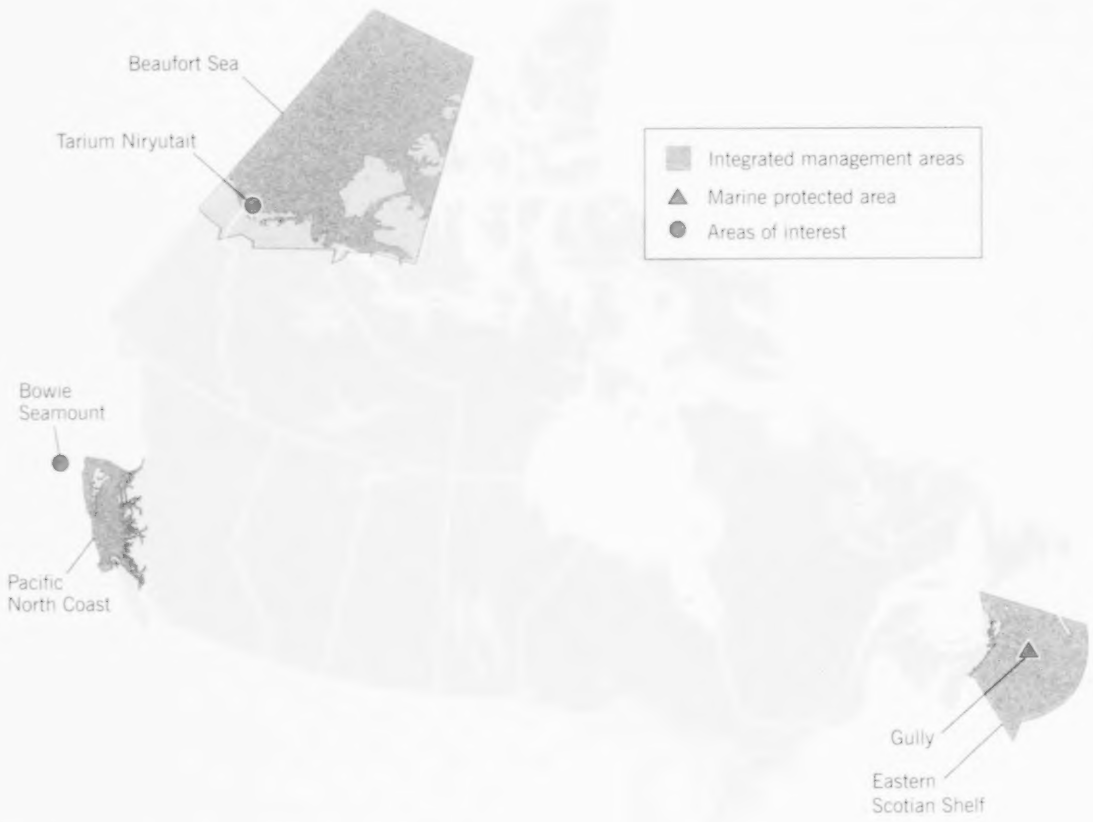
- the Eastern Scotian Shelf Integrated Management Initiative (Eastern Scotian Shelf, Atlantic Ocean);
- the Beaufort Sea Integrated Management Planning Initiative (Beaufort Sea, Arctic Ocean); and
- the Pacific North Coast Integrated Management Area (Pacific North Coast, Pacific Ocean).

Exhibit 1.4 shows our assessment of the progress that the Department has made in the three areas that we examined, using the six stages in the Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada as criteria.

1.33 Since 1997, the Department has supported many integrated management projects in all three oceans, taking a pilot-based approach with the intention of using lessons learned to develop guidance on integrated management planning. The Department has informed us that the early stages of these projects have yielded positive results, such as promoting stewardship, building local capacity, building relationships, and implementing specific conservation measures. In the two integrated management planning processes for the Eastern Scotian Shelf and the Pacific North Coast, we have reported on certain benefits that we observed (see our case studies on page 18).

1.34 Although some early results have been achieved, overall progress has been slow. Of the three planning processes that we examined, only the Eastern Scotian Shelf has progressed in a meaningful manner.

Exhibit 1.3 **Integrated management areas, marine protected areas, and areas of interest that we looked at**


Beaufort Sea
Tarium Niryutait
Integrated management areas
Marine protected area
Areas of interest
Bowie Seamount
Pacific North Coast
Gully
Eastern Scotian Shelf

Source: Fisheries and Ocean Canada

1.35 We found that the lack of operational guidance on the Department's overall approach to integrated management planning affected its ability to deliver on earlier optimistic commitments. We are concerned that until this guidance is finalized, the Department's ability to meet its commitments will continue to be affected.

1.36 **Need for national guidance.** Given the complex and innovative nature of integrated management planning, clear guidance is important for effective implementation. The Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada, issued in 2002, provided conceptual guidance on the approach. The Department recognized that more detailed operational guidance was also required.

1.37 Integrated management planning incorporates an ecosystem-based approach, and the Department's Oceans Directorate and its Science Sector have been working jointly to develop an ecosystem-based management framework over the last five years. Guidance is being developed for preparing ecological overviews, including identifying ecologically sensitive areas, and developing

Exhibit 1.4 **Progress in implementing three integrated management planning initiatives**

Criteria	Eastern Scotian Shelf	Beaufort Sea	Pacific North Coast	Comments
Define and assess an area.	◓	◓	◓	Eastern Scotian Shelf—the area is being redefined to full Scotian Shelf. Beaufort Sea—the area has recently been defined. Pacific North Coast—the area has recently been redefined, and the assessment has begun.
Engage affected interests.	●	◓	◓	Eastern Scotian Shelf—extensive consultations have been conducted. Beaufort Sea—engagement mostly for the purpose of establishing a marine protected area. Pacific North Coast—consultations with specific groups are ongoing.
Develop an integrated management plan.	◓	○	○	Eastern Scotian Shelf—a draft plan has been developed, and consultations are ongoing.
Endorse the plan.	○	○	○	No plans exist.
Implement the plan.	○	○	○	No plans exist.
Monitor, evaluate, report, and revise the plan.	○	○	○	No progress.

● Satisfactory progress ◓ Some progress ○ Limited or no progress

ecosystem objectives and marine environmental quality objectives. The guidance that exists is being tested in the Eastern Scotian Shelf initiative. Completion and approval of a comprehensive ecosystem-based management framework and supporting guidance would be a major advance.

1.38 Canada's Oceans Strategy also emphasizes social and economic development opportunities arising from our ocean resources. However, the Department has not developed guidance on how socio-economic factors are to be incorporated into the integrated management planning process.

1.39 The development of the Department's integrated management planning approach has been supported through a series of workshops and meetings by the Oceans Directorate and Science Sector staff. The status of conclusions reached at these meetings is often unclear—that is, whether the results are to be incorporated into the integrated management planning process and how this would be done.

1.40 **Consultation.** For the most part, the Department has been proactive and diligent in engaging stakeholders and communities. This engagement is important to achieve participation and buy in for integrated management planning and the plans and decisions that arise from that process. However, it is difficult to achieve full and meaningful involvement of stakeholders and communities until they are provided with a draft plan for their area. The Eastern Scotian Shelf draft plan was released for public comment in June 2005.

Lack of progress on a national system of marine protected areas

1.41 Marine protected areas (MPAs) are seen internationally and in Canada as one of the primary means for marine biodiversity and habitat to be protected. However, restrictions on the use of ocean resources in protected areas can raise concerns with stakeholders. Under the *Oceans Act*, the Minister of Fisheries and Oceans is to lead and co-ordinate the development and implementation of a national system of MPAs.

1.42 There are two other federal organizations with responsibilities for marine protected areas. The 2002 *Canada National Marine Conservation Areas Act* clarified Parks Canada's authority to protect places representative of Canada's marine heritage as marine conservation areas. Environment Canada's Canadian Wildlife Service has the authority to designate national wildlife areas, marine wildlife

Canada's
Federal
Strategy
Canada

Canada's Federal Marine Protected Areas Strategy was released in June 2005.

areas, and migratory bird sanctuaries with a focus on protecting marine migratory birds and species at risk.

1.43 Each organization is considering proposals to establish protected areas under its respective legislation, and Fisheries and Oceans Canada has recently designated two MPAs under the *Oceans Act*. The Canadian Wildlife Service manages 69 national wildlife areas and migratory bird sanctuaries with marine components that protect 31,000 square kilometres of marine habitat.

1.44 **Development of a national strategy.** In 1998, the government published *Working Together for Marine Protected Areas—A National Approach*. The next year, the Department issued the Marine Protected Areas Policy and the National Framework for Establishing and Managing Marine Protected Areas. In 2002, in Canada's Oceans Strategy, the government committed to develop a strategy for a national network of MPAs.

1.45 In June 2005, the government released Canada's Federal Marine Protected Areas Strategy. The three federal organizations involved had recognized that communication and collaboration between them have not always been consistent and tended to evolve opportunistically. The strategy is also a key deliverable of Canada's Oceans Action Plan and represents the first step to getting the federal house in order.

1.46 **Designating *Oceans Act* marine protected areas.** Marine protected areas can be designated under the *Oceans Act* for the purposes of conserving and protecting commercial and non-commercial fishery resources, endangered and threatened species and their habitats, unique habitats, and areas of high biodiversity or biological productivity.

1.47 Between 1998 and 2000, Fisheries and Oceans Canada identified 13 areas of interest as potential MPAs. Fisheries and Oceans Canada's *2001–2003 Sustainable Development Strategy* made a commitment to have five MPAs in place by the end of 2002. That commitment was not met. Since then the Department designated Endeavour Hot Vents (2003) and Gully (2004) as marine protected areas.

1.48 The Department's *2005–2006 Sustainable Development Strategy* makes no specific commitment about MPAs. However, the Department's 2005–2010 Strategic Plan targets the designation of up to five MPAs by March 2008, and up to four more by March 2010. The Oceans Directorate has recently requested the scientific information necessary to identify potential MPAs through an integrated management planning process. In March 2005, the Science Sector published criteria for identifying ecologically and biologically sensitive areas and is now organizing itself to provide the ecosystem science necessary to support this type of planning.

1.49 Of the two existing MPAs and eleven areas of interest, we selected one from each ocean for examination (see Exhibit 1.3). The case studies selected were the Gully Marine Protected Area, the Bowie Seamount area of interest, and the Tarium Niryutait area of interest. Our findings are presented on pages 19 and 20. Exhibit 1.5 shows our assessment of the Department's progress toward designating the three cases MPAs. We used the six stages in the Department's National Framework for Establishing and Managing Marine Protected Areas as criteria.

1.50 For the three cases examined, we found that the evaluation process took five to seven years. At this rate, it will take many years to put in place a national system of marine protected areas. The length of time being taken to designate MPAs brings into question whether the Department's commitments and targets can be met.

Exhibit 1.5 **Progress in designating three marine protected areas**

Criteria	Gully Marine Protected Area	Tarium Niryutait area of interest	Bowie Seamount area of interest	Comments
Identify area of interest.	◓	◓	◓	None were initially identified through integrated management planning.
Screen area of interest.	●	●	◓	Bowie Seamount—concerns exist about the lack of interim measures to protect the biodiversity of sablefish stocks.
Evaluate and recommend area of interest.	●	◓	◓	Tarium Niryutait—evaluation did not establish whether protection from two key environmental risks would be provided. Bowie Seamount—assessment work is not complete.
Develop management plan.	●	●	○	Gully—a plan is being prepared for discussion with stakeholders. Tarium Niryutait—a plan is being finalized after discussion with stakeholders. Bowie Seamount—planning process ended in 2003 and is only now starting again.
Designate marine protected area.	●	◓	○	Tarium Niryutait—a draft regulatory intent document has been prepared for discussion with stakeholders.
Manage marine protected area.	●	○	○	Gully—a management plan is being developed, monitoring and enforcement are being conducted.

● Satisfactory progress ◓ Some progress ○ Limited or no progress

The Eastern Scotian Shelf Integrated Management Initiative (Eastern Scotian Shelf)

Background. The Eastern Scotian Shelf area is about 325 000 square kilometers in size. It is situated south-east of Nova Scotia and focuses on activities beyond 12 nautical miles from shore. It was announced in December 1998.

Development of an integrated management approach. Before the issuance of the 2002 Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada, the Department's Maritime Region focused its efforts on establishing an oceans office and defining the process to be undertaken.

The Region carried out activities necessary to gain an understanding of the existing oceans-related governance structures, ecosystems and human uses of the area.

The Eastern Scotian Shelf is a multi-stakeholder, collaborative, planning process with the aim to develop and implement an integrated oceans management plan. Extensive consultations have been carried out with representatives of the federal and provincial levels of government. The [illegible] and regulatory authorities, and approved by the Minister of Fisheries and Oceans under the Oceans Act.

Development of a draft management plan. In February 2005, the Department released the draft Eastern Scotian Shelf Management Plan [illegible] from stakeholders. The draft plan sets out a proposed process for future oceans planning and management. Ecosystem and human use objectives have been identified through the collaborative planning approach, and operational objectives are being developed by stakeholders. [illegible] federal and provincial governments [illegible] the Eastern Scotian Shelf approach to integrated management planning.

Benefits from the planning process. The Eastern Scotian Shelf has provided an opportunity for stakeholders representing different interests to meet. The Eastern Scotian Shelf consultations [illegible]

Nova Scotia
Gully
Sable Island
Eastern
Scotian Shelf

[illegible]

[illegible] A working group of the Eastern Scotian Shelf [illegible] the Department in developing a draft [illegible] Plan in February 2005 [illegible] working group played a [illegible] protection through [illegible] regulations. The [illegible] Gully Marine Protected Area [illegible] to the [illegible]

Pacific North Coast Integrated Management Area

Background. The Pacific North Coast Integrated Management Area (Pacific North Coast) is 88 000 square kilometres stretching from the northwest coast of Vancouver Island to the Canada-Alaska border. The Department's Pacific Coast integrated management efforts have explored different approaches over time in different coastal areas.

Concern. Stakeholders are being engaged but [illegible] raised concerns about the timely achievement of [illegible] results, that is, improved planning and decision making that incorporates ecosystem considerations.

Key integrated management initiatives since 1998

[illegible]

Case studies—Integrated management areas

The Eastern Scotian Shelf Integrated Management Initiative (Eastern Scotian Shelf)

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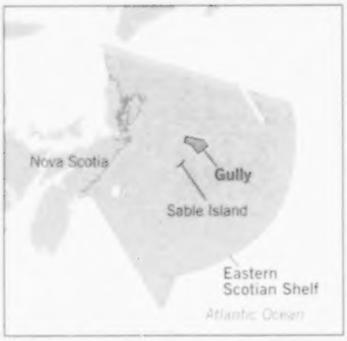
The Region carried out activities necessary to gain an understanding of the existing oceans-related governance structures, ecosystems, and human uses of the area.

The Eastern Scotian Shelf is a multi-stakeholder, collaborative, planning process with the aim to develop and implement an integrated oceans-management plan. Extensive consultations have been carried out with stakeholders and at the federal and provincial levels of government. The intention is to have the plan accepted by all stakeholders, endorsed by legislative and regulatory authorities, and approved by the Minister of Fisheries and Oceans under the *Oceans Act*.

Development of a draft management plan. In February 2005, the Department released the draft Eastern Scotian Shelf Management Plan (2006–11) for input from stakeholders. The draft plan sets out a detailed process for future oceans planning and management. Ecosystem and human-use objectives have been identified through the collaborative planning approach, and operational objectives are being reviewed by stakeholders. It is yet to be determined whether stakeholders and the federal and provincial governments will accept the Eastern Scotian Shelf approach to integrated management planning.

Benefits from the planning process. The Eastern Scotian Shelf has provided an opportunity for stakeholders representing different interests to meet. The Eastern Scotian Shelf consultations identified concerns about deep sea corals. A working group on the Eastern Scotian Shelf Initiative assisted the Department in developing a draft Coral Conservation Plan in February 2005. Also, the working group played a role in the Department protecting, through fisheries regulations, the Lophelia Coral Conservation Area. The Gully Marine Protected Area also provides protection to the deep sea corals within its boundaries.



Source: Fisheries and Oceans Canada

Pacific North Coast Integrated Management Area

Background. The Pacific North Coast Integrated Management Area (Pacific North Coast) is 88,000 square kilometres stretching from the northwest coast of Vancouver Island to the Canada-Alaska border. The Department's Pacific Coast integrated management efforts have explored different approaches over time, in different coastal areas.

Concern. Stakeholders are being engaged, but the overall slow progress raises concern about the timely achievement of intended results, that is, improved planning and decision making that incorporates ecosystem considerations.

Key integrated management initiatives since 1998

1998	Signed a letter of agreement with the Province of British Columbia to work together to develop coastal resource management plans. These planning initiatives are led by the Province with the Department's active participation, and several plans have been concluded.
2001	Started the Central Coast Integrated Management initiative. Regional funding reductions limited progress on this initiative.
2002	Signed a framework agreement with First Nations to develop a co-management arrangement that included marine-use planning in the central and north coast areas.
2004	The proposed Pacific North Coast area is much larger and will overlap with the previous initiatives; however, the focus is on the Queen Charlotte Basin area. This initiative is in its early stages. Canada signed a memorandum of understanding with the Province of British Columbia for the implementation of Canada's Oceans Strategy on the Pacific Coast. Subsidiary agreements are being negotiated for marine protected areas and marine-use planning.

Case studies—Marine protected areas and areas of interest

Gully Marine Protected Area

Background. The Gully is the largest submarine canyon in the western North Atlantic and is located approximately 200 kilometers off the coast of Nova Scotia, near Sable Island. The Gully has long been the focus of conservation interest, largely due to the presence of endangered northern bottlenose whales and the Gully's unique habitat. Concerns about the Gully increased with oil and gas exploration and production in the surrounding area. Given its depth and the relative inaccessibility to human use, the Department had acquired little knowledge about the Gully.

Designating the Marine Protected Area (MPA). Beginning in 1999, Fisheries and Oceans Canada undertook a three-year assessment of the environmental and human-use factors affecting the proposed Gully MPA. The Department conducted a science review, including seabed mapping, which revealed more about the uniqueness of the Gully habitat, including identifying the highest known diversity of deep sea coral species in Atlantic Canada. The Department's assessment recommended designation of the Gully as an MPA.

Photographing an endangered northern bottlenose whale in the Gully

Source: Fisheries and Oceans Canada

The Department proposed boundaries for the Gully to include:

Zone 1—a no-activity area;

Zone 2—a fishing-only area with some restrictions; and

Zone 3—an area where fishing is allowed with fewer restrictions and other activities are allowed with permission.

The Department also added a clause in the regulation stating that no one will carry out an activity in the vicinity of, or in an area adjacent to, the Gully that will negatively impact the Gully.

The Gully Marine Protected Area Regulations came into force in May 2004.

Need for a management plan. The Department is now finalizing the management plan for the Gully MPA. The plan will include the MPA's goals and objectives, how they will be reached, and how success will be measured. According to the Department, the Gully management plan will address conservation and management strategies and provide stakeholders with greater certainty about the conduct of activities within and in the areas adjacent to the MPA.

Bowie Seamount area of interest

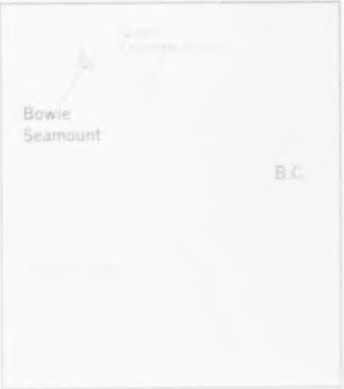
Background. The Bowie Seamount is located 180 kilometres west of Queen Charlotte Island. It is an inactive volcano that ranges in depth from 25 to 3,100 meters below the sea surface. Seamounts are often associated with areas of high productivity and have been recognized internationally as needing protection.

In December 1998, Bowie Seamount was identified as an area of interest to be designated as a marine protected area. It was selected due to its high biodiversity and unique habitat.

Department's initial assessment. The Department's 1999 initial ecosystem assessment of the area of interest noted the threat of overfishing to resident sablefish stocks. It noted the uncertainties associated with the health of the Bowie Seamount sablefish stocks and the impact of the fishery on these stocks. The Department's policies provide for interim measures to protect the resources and habitat of an area of interest should they appear to be threatened.

No interim protective measures. Despite the initial assessment and ongoing concerns about the Bowie Seamount sablefish stocks, interim protective measures have not been put in place.

Concern. The Department may not be acting in a precautionary manner by failing to implement interim protective measures for Bowie Seamount sablefish stocks and is only now identifying the information needed to determine the risks to the Bowie Seamount sablefish stocks arising from the fishery. Seven years after its identification as an area of interest, Bowie Seamount is not receiving the protection possible through designation as a marine protected area.



Source: Fisheries and Oceans Canada

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Tarium Niryutait area of interest

Background. The Report of the Mackenzie Valley Pipeline Inquiry recognized the need to protect beluga whales and their summer habitat in and around the Mackenzie Delta as early as 1977. The Department established the Beaufort Sea Integrated Management Planning Initiative in 2000. Its planning forum decided that the designation of a marine protected area (MPA), Tarium Niryutait, was the highest priority.

Planning accomplishments. Our review of the proposed MPA showed that the Department had done the following:

- established a planning forum that included the Inuvialuit and respected existing co-management arrangements;
- captured traditional knowledge that was used in the planning process, including how it will be used for monitoring purposes; and
- proposed regulatory protection for the beluga whales and their summer habitat that had previously been protected through guidelines.

Planning issue. The Department's evaluation did not establish whether the proposed MPA would protect the beluga whales and their habitat from two key environmental quality issues: oil and gas development in the adjacent area and potential changes in the amount and quality of water in the Mackenzie River drainage area.

Tarium Niryutait
Beaufort Sea
Mackenzie Delta
Yukon
N.W.T.

Source: Fisheries and Oceans Canada

Concern: We are concerned that, five years after the Beaufort Initiative began, the Department's evaluation of two key environmental risks did not conclude whether designating an MPA would achieve the desired protection for belugas.

Sustainable development strategy commitments not met

1.51 The *2001–2003 Sustainable Development Strategy*, tabled in February 2001, contained five specific oceans commitments; we assessed the progress Fisheries and Oceans Canada has made in meeting these oceans commitments. In Exhibit 1.6, we present the commitment progress made up to the end of 2002, the target date, with further assessment of the status in 2005.

1.52 The Department fully met only one of its five commitments—establishing the Minister's Advisory Council on Oceans. Subsequently, however, the term for the council was not renewed. There is now no national forum where stakeholders can have input into Canada's Oceans Strategy.

1.53 With respect to the 2001–2003 Strategy, we found that the Department had not prepared plans in support of its oceans commitments.

A pod of beluga whales swims near Tarium Niryutait in the Beaufort Sea.

Source: Fisheries and Oceans Canada

1.54 The Department issued its 2005–2006 Strategy in March 2005. The new oceans commitments are as follows:

- a national strategy for, and designation of, marine protected areas;
- ecosystem overview reports completed for five high-priority large ocean-management areas by the end of 2006;

Case studies—Marine protected areas and areas of interest

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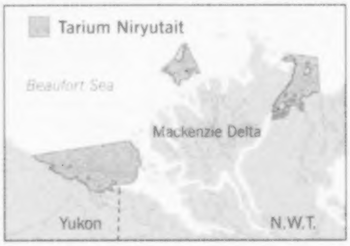

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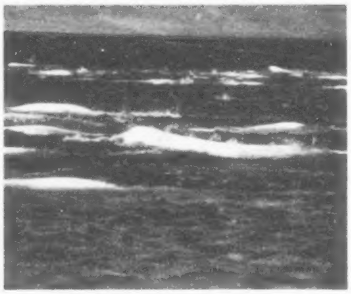

A pod of beluga whales swims near Tarium Niryutait in the Beaufort Sea.

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- a national strategy for, and designation of, marine protected areas;
- ecosystem overview reports completed for five high-priority large ocean-management areas by the end of 2006;

- integrated management plans in place for five high-priority large ocean-management areas by 2007; and
- collaborative arrangements with the provinces and territories by 2006.

Delivering on Canada's international oceans commitments

1.55 Canada has made a number of oceans-related commitments in recent years (see Exhibit 1.2, which includes a chronology of international oceans events). We found that the oceans commitments made through the 2002 World Summit on Sustainable Development, for the most part, encapsulated those made by Canada in other international agreements. Therefore, we examined whether the Department was delivering on the World Summit commitments on oceans management (see Exhibit 1.7 for the specific World Summit commitments that we examined and what we found).

Exhibit 1.6 **Progress in meeting sustainable development strategy commitments**

Commitment	Progress 2002	Progress 2005	Comments
Develop and implement integrated management plans and complete demonstration projects in three coastal regions: Eastern Scotian Shelf, Western Arctic*, and Gulf of St. Lawrence. **Target.** Three plans by end 2002	○	◒	The Department is now focussing on five large ocean-management areas. Three of these are still in the early stages of development. The Eastern Scotian Shelf initiative is at the draft management plan stage.
Establish Minister's Advisory Council on Oceans. **Target.** None specified	●	○	The Minister's Advisory Council was not renewed when its term expired.
Develop an operational framework for incorporating ecosystem considerations within oceans management. **Target.** End 2002	○	◒	The Department is still developing key elements of its ecosystem-based management framework.
Develop and implement a national system of marine protected areas including designation of five marine protected areas (MPAs). **Target.** Five by end 2002	○	◒	Canada's Federal Marine Protected Areas Strategy was released in June 2005. Two MPAs have been designated under the *Oceans Act*.
Establish marine environmental quality guidelines, objectives, and criteria. **Target.** None specified	○	◒	Guidelines for preparing ecosystem objectives have been developed. Seismic regulations are being developed.

* The Western Arctic project is now called the Beaufort Sea Integrated Management Planning Initiative.

● Satisfactory progress ◒ Some progress ○ Limited or no progress

1.56 The government's Earth Summit Secretariat, which co-ordinated Canada's participation in the summit, worked with departments to identify a manageable set of federal commitments to monitor and report on. Fisheries and Oceans Canada reviewed its oceans responsibilities and determined that its ongoing policies and activities were well aligned to meet the oceans commitments made at the World Summit. However, the Department does not monitor its progress against specific commitments and has not reported publicly on its progress.

1.57 **Recommendation.** Fisheries and Oceans Canada should

- finalize and implement its operational guidance for integrated management planning, including marine protected areas, in the five priority ocean areas; and

Exhibit 1.7 **Progress in meeting 2002 World Summit commitments on oceans management**

Commitment	Progress	Comments
Encourage the application, by 2010, of the ecosystem approach to the management of oceans.	◓	The Department is developing an ecosystem approach, which is a key component of its integrated management planning. It is testing some aspects of the approach.
Establish marine protected areas consistent with international law and based on science, including representative networks by 2012.	◓	The Department has designated 2 marine protected areas under the *Oceans Act*, and has identified 11 areas of interest as potential marine protected areas. But, we are concerned that Canada is in danger of not meeting the commitment to establish representative networks of marine protected areas by 2012 for the following reasons: • delays in developing a federal marine protected areas strategy, • no plan for how the commitment will be met, and • uncertainties about funding.
Promote integrated, multidisciplinary and multisectoral coastal and oceans management at the national level.	◓	The *Oceans Act*, Canada's Oceans Strategy, and Canada's Oceans Action Plan promote an integrated management approach. However, moving from a definition of integrated management to implementing it has been difficult. The Department is leading integrated management planning initiatives in five large ocean areas.
Implement the work programme arising from the Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity of the Convention on Biological Diversity.	◓	The *Oceans Act*, Canada's Oceans Strategy, and Canada's Oceans Action Plan are consistent with the Jakarta Mandate. Key elements, including integrated management, ecosystem approach, and marine protected areas have been reported in the previous three commitments.

● Satisfactory progress ◓ Some progress ○ Limited or no progress

- plan and manage its resources to ensure that the oceans commitments and targets in the annual report on plans and priorities, the *2005–2006 Sustainable Development Strategy*, and the 2005–2010 Strategic Plan will be met. This should also include oceans commitments specific to the Department that were made at the 2002 World Summit on Sustainable Development.

Fisheries and Oceans Canada's response. Fisheries and Oceans Canada is implementing operational guidance and supporting documentation in each of the five priority large ocean management areas. Structures are in place to support processes and provide the necessary guidance so that the development of the Oceans Action Plan (OAP) Phase I deliverables can proceed and evolve, with the involvement of partners and stakeholders.

Service level agreements between the Assistant Deputy Minister, Oceans and each region responsible for OAP Phase I deliverables are the basis by which semi-annual and annual progress against commitment and targets in line with the funding received will be monitored.

Commitments will be reported to Parliament annually through the report on plans and priorities and performance report using the Department's new program activity architecture, which for the first time, breaks out budget and performance information for oceans. In addition, reporting on commitments will be guided by the OAP Phase I results-based management accountability framework with a formative evaluation to be completed in 2006.

Accountability for implementation

Standing Committee reviewed the *Oceans Act*

1.58 The *Oceans Act* stipulated that the Standing Committee on Fisheries and Oceans review the administration of the Act within three years after it came into force. The Standing Committee reported in October 2001 and concluded that the Act was fundamentally sound. It observed that certain principles and programs had not been fully implemented and made 12 oceans recommendations. The government responded to the Standing Committee report in March 2002. The response stated that implementation of the *Oceans Act* would be measured through an accountability framework, and that this performance would be reported through the Department's annual performance report and sustainable development strategy, both of which are tabled in Parliament.

1.59 Fisheries and Oceans Canada has yet to finalize and implement an accountability framework although one was drafted in 2002 and subsequently updated during 2004. The proposed performance measurement strategy and the measurement and evaluation schedule have not been implemented. As a result, performance indicators are not in place, and annual performance reporting is not taking place.

1.60 The government agreed with the Standing Committee's recommendation to prepare a state-of-the-oceans report to document the health of Canada's oceans resources. The response said that a periodic report to highlight the state of the oceans would be developed to include information on the health of our oceans ecosystems, oceans communities, and related oceans industries and would be prepared every three to five years.

Promise to report on state of the oceans not kept

1.61 In addition to the Committee recommendation, the National Round Table on the Environment and the Economy recommended in its 2003 *Securing Canada's Natural Capital: A Vision for Nature Conservation in the 21st Century* report that Fisheries and Oceans Canada take the lead in producing a state-of-the-oceans report for Canada every five years. The report noted that consolidated information from a variety of sources in a regular national report on ocean trends would give decision makers, at all levels, much needed information about whether the health of the country's marine ecosystems is improving or declining.

Did you know?

Australia has a legislative requirement that state-of-the-environment reports be prepared every five years. The 2001 report included information on coasts and oceans.

1.62 A July 2002 Fisheries and Oceans Canada discussion document on state-of-the-oceans reporting indicated that such reporting would be a mechanism to follow the results of Canada's Oceans Strategy to see how well the government lived up to its responsibilities under the *Oceans Act*. The proposed national state-of-the-oceans report was to keep the public informed, not just on the health of the oceans, but also on how we are managing marine resources, fostering sustainable oceans industries, engaging coastal communities, protecting species-at-risk and biodiversity, and resolving potential conflicts.

1.63 We found that Fisheries and Oceans Canada has not provided Parliament and the public with the promised information on the state of Canada's oceans. The Department does produce state-of-the-oceans regional reports that are available to the public, but these scientific reports only describe the physical, chemical, and biological oceanographic state of the marine environment. Eight years after the *Oceans Act* came into force, it remains difficult to assess the condition of our oceans ecosystems, communities, and industries. The Department has not set a date for producing a first national state-of-the-oceans report.

Poor reporting to Parliament and the public

1.64 Reporting to Parliament. We reviewed Fisheries and Oceans Canada's annual report on plans and priorities and performance report for the past five years. We found that the Department's reporting on *Oceans Act* responsibilities to Parliament has been generally poor. The annual reports on plans and priorities contained few plans for oceans activities and no related performance expectations and targets. The annual performance reports presented very little performance information. It was also difficult to follow the spending for oceans activities, and the presentation of oceans activity information was inconsistent from year to year.

1.65 We found some improvement in the *2003–04 Performance Report*, and more progress was noted in the *2005–06 Report on Plans and Priorities*. It presented information in accordance with the new program activity architecture with budgets, plans, and expected results for integrated management; marine protected areas; and other sub-activities. With this new structure and information, there is now an opportunity for further improvement in the performance reporting of oceans management activities.

1.66 Other public reporting. One of the Standing Committee on Fisheries and Oceans' recommendations was that Fisheries and Oceans Canada publish, in a proactive manner to the public, information on suggested marine protected area sites through its Oceans Program Activity Tracking Web site, as well as other media. The March 2002 government response to the Standing Committee agreed. The oceans tracking system was described as an efficient, user-friendly approach to information sharing that provided geographic information and facts on activities under the Department's oceans programs and was an important tool in the implementation of *Oceans Act* programs and policies, including marine protected areas.

1.67 We found that much of the information on the oceans tracking system had not been updated for more than two years. Some of it is now out of date and misleading.

1.68 Recommendation. Fisheries and Oceans Canada should

- finalize and implement an accountability framework for its oceans management activities;

- provide sufficient relevent and reliable financial and other performance information in its annual report on plans and priorities and annual performance report to allow Parliament to hold the Department to account for its oceans-management activities; and
- improve communications to the public, including periodic information on the state of the oceans.

Fisheries and Oceans Canada's response. A results-based management and accountability framework for Canada's Oceans Action Plan (OAP) Phase I is complete but, due to its two-year timeframe, it focusses on outputs not outcomes. A formative evaluation of the OAP will take place in 2006. Longer-term outcomes to achieve healthy oceans will be developed over time, and the framework will be revised as necessary for future phases of the OAP in 2006 and beyond.

The new program activity architecture introduced in 2005 will provide transparent financial reporting of oceans activities. In addition, management tools for tracking OAP resources will be developed by fall 2005.

Fisheries and Oceans Canada will identify tools for effective communication of oceans programming and elaborate products to implement Canada's Oceans Action Plan Phase I communications strategy (fall 2005 through April 2007). The Department will lead proactive communication of OAP deliverables, including working with other federal organizations, as well as provinces and territories, aboriginal organizations, and stakeholders. There will be a series of ministerial announcements beginning in May 2005.

Annual state-of-the-oceans regional science reports will provide the baseline for understanding oceans and ecosystems. Fisheries and Oceans Canada recognizes the value of broader and national level reports, however, given resource limitations the focus in Phase I will be on knowledge development and communication in the targeted context of the development of integrated management plans in priority areas. Ecosystem overviews and the identification of sensitive areas will be completed for each of the five priority large ocean management areas by 2007.

Conclusion

1.69 We concluded that Fisheries and Oceans Canada has made some progress on the three audit objectives that follow:

- Is meeting its responsibilities as set out in the *Oceans Act*, Part II, Oceans Management Strategy
- Is meeting national and international oceans commitments
- Has implemented oceans-management recommendations of the Standing Committee on Fisheries and Oceans from its review of the administration of the Act

1.70 The Department has made less progress on our fourth objective: Has appropriately measured and reported the performance and results of its oceans-management activities.

1.71 Canada aspires to be a world leader in modern approaches to oceans management. The 1996 *Oceans Act* and the 2002 Canada's Oceans Strategy established heightened expectations for action. Eight years after the passage of the Act, only modest progress has been made, and expectations have not been met.

1.72 The government and Fisheries and Oceans Canada have not established the governance and accountability frameworks necessary for effective implementation of the *Oceans Act* and Canada's Oceans Strategy. The 1996 *Oceans Act* was not supported by a complete program structure, results were not defined, and implementation funding was not provided.

1.73 The Department is developing operational guidance on the ecosystem elements of integrated management planning. But little progress has been made on developing the socio-economic elements. There is no assurance that the new guidance will be available to be used in the five large ocean-management areas where the Department is now focussing its efforts.

1.74 Fisheries and Oceans Canada's development and implementation of integrated management and marine protected areas have lacked focus and fallen far short of meeting commitments and targets. These commitments were contained in the *2001–2003 Sustainable Development Strategy* and in the government response to the report of the Standing Committee on Fisheries and Oceans.

1.75 The Department's 2005–2010 Strategic Plan contains targets for five integrated management plans by March 2008 and up to nine marine protected areas by March 2010. These may be more realistic than previous commitments. However, Canada's international commitment to create a representative network of marine protected areas by 2012 will be difficult to achieve. The immediate challenge for Fisheries and Oceans Canada is to narrow the gap between its commitments and the results it delivers.

1.76 Parliament has not been provided with the financial and other performance information necessary to hold the Department to account for the implementation of the Act and Canada's Oceans Strategy. This lack of accountability may have contributed to the slow progress that has been made.

1.77 Fisheries and Oceans Canada has not communicated a clear and compelling oceans story to develop parliamentary and public support for its activities. The Department has not delivered promised reporting on the state of the oceans and has not kept information on its Web site up to date. Opportunities to build momentum for upcoming challenges are being missed.

1.78 Fisheries and Oceans Canada should address existing barriers and move forward with the implementation of Canada's Oceans Action Plan. Unless good progress is made, the Department and the government risk criticism and loss of credibility both at home and abroad.

About the Audit

Objectives

Our audit objectives were to determine whether Fisheries and Oceans Canada

- is meeting its responsibilities as set out in the *Oceans Act*, Part II, Oceans Management Strategy,
- is meeting its national and Canada's international oceans commitments,
- has implemented oceans-management recommendations of the Standing Committee on Fisheries and Oceans from its review of the administration of the Act, and
- has appropriately measured and reported the performance and results of its oceans-management activities.

Scope and approach

The *Oceans Act* establishes Fisheries and Oceans Canada's lead role in oceans management. The audit examined the progress made in implementing the *Oceans Act*, specifically the Department's role in the development and implementation of a national oceans strategy and integrated management plans. We examined integrated management plans and marine protected areas, in light of the specific requirements set out in the Act, and commitments made in the government response to the Standing Committee report.

Criteria

We expected that the Department would do the following:

- Have clear plans and results expectations—including reasonable timetables, deadlines, and costs—for its responsibilities under the *Oceans Act*, Part II, Oceans Management Strategy; its responsibilities related to oceans management in Canada's Oceans Strategy; its oceans commitments in its Sustainable Development Strategy; and Canada's international oceans commitments for which the Department has responsibility, in particular, the World Summit on Sustainable Development commitments.
- Lead and facilitate the development and implementation of a national oceans strategy, based on the ecosystem approach and the principles of sustainable development, integrated management, and the precautionary approach.
- Lead and facilitate the development and implementation of policy and plans for the integrated management of Canada's oceans, including a national system of marine protected areas.
- Have reliable and timely information on the key environmental, social, economic, and institutional risks associated with the oceans and their use; and use this information in setting priorities and allocating resources for its integrated oceans-management, science, monitoring, and enforcement activities.

- Implement, as appropriate and in a reasonable time, the oceans-management recommendations made by the Standing Committee on Fisheries and Oceans.
- Measure, report, and account for its performance and the results achieved from its oceans-management responsibilities and commitments; and provide this information to management and Parliament on a timely basis.

Audit team

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Appendix A Lessons learned from international experiences

The following are lessons learned from our review of modern oceans-management approaches being applied in several jurisdictions. We concentrated most of our effort on the Australian experience because of similarities with Canada. As well, Australia is viewed as the world leader in the development and implementation of a modern oceans-management approach.

Building a strong foundation

1. **Political leadership**—A recurring theme is that significant progress in oceans management can potentially be achieved under the leadership of committed and influential political leaders.
2. **Legislative framework**—Although specific oceans legislation may not be required, other legislation that supports the envisaged oceans-management approach should already be in place. In Canada we have the *Oceans Act*; in Australia the major components of oceans environmental protection are brought together under the *Environment Protection and Biodiversity Conservation Act*.
3. **Clarity of vision**—There needs to be a focus on what is to be achieved and how. What are the specific outcomes expected from the policy? Is the approach to use the "best intentions" of the parties, or does it involve formal commitments?
4. **Clarity of policy**—There should be movement toward policy specificity. Those involved in delivery of the policy must know where they fit and what is expected at specific stages. The oceans policy vision should be stated publicly.
5. **Machinery of government**—There is no one model that captures where oceans policy should rest within government. However, it should be located where it can have influence across government and be independent from industry sectors and interest groups. Advisory bodies and senior officials' boards can provide strength, visibility, and formality to enhance the potential for successful implementation.
6. **Accountability framework**—The approach should clearly set out what is to be achieved, how it will be achieved, the resources to be engaged, and the delegation of responsibility. The means of measurement, evaluation, and reporting should be known.
7. **Cultural change**—There is a fundamental expectation that sector industries and government departments will behave differently; that is, they should make decisions that consider the impact on other oceans resource users and the health of the oceans.

Delivering on expectations

8. **Implementation plan**—A plan to guide the implementation of an oceans policy is necessary. The plan should incorporate objectives, goals, resource requirements, and timeframes. It should be realistic and achievable.
9. **Risk-based approach**—Oceans management is fraught with scientific and management uncertainty. Risk management approaches are necessary to guide where management and scientific resources and effort are best engaged and to what extent.
10. **Best available science**—The extent of knowledge that is available will vary from area to area. Knowledge can rest in different institutions and with stakeholders. Mechanisms must be developed to ensure that the best available knowledge, including traditional knowledge, is incorporated into the approach.

11. **Consultation/partnership/engagement**—The involvement of communities and stakeholders is vital, but it must be meaningful. Those engaged must understand what the process is designed to achieve and what their role should be. Consultation processes should be open, transparent, and inclusive. Industry sector-based consultation also has a role in gathering specific information.

12. **Spatial selection**—Selection of the planning or management area is important. If possible, the area should reflect how the ecosystem functions, while taking into account how social and economic interests relate to it. The appropriate spatial scale for ecosystem planning will often require the inclusion of areas that cross multiple jurisdictions. For example, estuarial, coastal zone, and offshore ocean areas can be interconnected from an ecosystem perspective, but management can be complex due to jurisdictional issues.

13. **Engagement of sector-based departments**—Sector-based (for example, fisheries, oil and gas, shipping) departments are not likely to be replaced under modern oceans-management approaches. They hold significant experience and knowledge about specific industries and their stakeholders. They should be drawn into the development and ownership of the oceans policy and the ongoing implementation if the policy is to succeed. Processes to achieve this engagement have to be meaningful without requiring inordinate amounts of time.

Learning from doing

14. **Adaptive learning**—As integrated oceans-management approaches are just being developed, government must adapt and change as it finds out what works and what does not. However, adaptation must be done within an overall agreed approach and should be, as much as possible, informed and information-based. This requires ongoing monitoring and lessons-learned processes.

15. **Public reporting**—Public reporting should be a part of the accountability framework. State-of-the-oceans reporting should provide a periodic (for example, five to ten years) assessment of the health of ocean ecosystems, communities, and industries that decision makers and the public can use.

16. **Review/reflection**—Periodic reviews of the oceans policy and its implementation can be beneficial. For example, the 2002 independent review of the Australian policy played a role in recent changes and improvements in the implementation of the policy.

17. **Public education and engagement**—Taking ownership of the oceans policy and the need to inspire stewardship by communities, citizens, and stakeholders is paramount to its success.

18. **Demonstrable benefits**—To gain the involvement of stakeholders, governments, and others there should be demonstrable benefits. For example, we observed that visual communication of information (for example, oceans-use information displayed on multi-dimensional, sea-bed maps) is useful to begin the engagement of government departments and stakeholders.

19. **Conception to maturity takes time**—The best example is the Great Barrier Reef ecosystem in Australian waters, managed by the Australian Great Barrier Reef Marine Park Authority, which has developed a mature plan for the integrated management of this large coastal/ocean area. It has taken over 30 years to reach this point.

Appendix B List of recommendations

The following is a list of recommendations found in Chapter 1. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
A national oceans strategy	
1.30 Fisheries and Oceans Canada should, through its Treasury Board submission on the Oceans Action Plan Phase I, have Canada's Oceans Action Plan recognized and managed as a government horizontal initiative. Consistent with the *Oceans Act*, Fisheries and Oceans Canada, in collaboration with participating departments, should lead and facilitate the development and implementation of action plan initiatives. Working with the Treasury Board Secretariat, the Department should also co-ordinate the reporting of results achieved. (1.19–1.29)	Oceans are inherently complex, technically in the interconnectedness of ecosystems and relationally in managing across jurisdictions. Phase I of the Oceans Action Plan (OAP) represents the first commitment of funds across the government that aligns with the horizontal nature of oceans issues. The governance structure includes deputy minister- and assistant deputy minister-level committees with representatives from almost 20 federal organizations with oceans responsibilities. A national implementation committee and regional implementation committees will be established by the end of 2005. Through the Oceans Action Plan Secretariat, Fisheries and Oceans Canada will co-ordinate the work of these implementation committees and support the deputy minister and assistant deputy minister committees. Led and facilitated by Fisheries and Oceans Canada, the seven funded departments and agencies under Phase I of the OAP developed a Treasury Board submission proposing 18 initiatives over a two-year period. They are now working together to implement these initiatives. Fisheries and Oceans Canada, working closely with the Treasury Board Secretariat, will co-ordinate the development of the Expanded Oceans Information Framework by spring 2006. The framework will measure and report on the progress and results of the 18 initiatives. The framework will contribute to the scoping and planning of Phase II of the OAP by fall 2006. Fisheries and Oceans Canada has led the development of an interdepartmental results-based management and accountability framework with the co-operation of its Phase I partners and the Treasury Board Secretariat. The OAP results information will be reported in Fisheries and Oceans Canada's annual report on plans and priorities (spring) and performance report (fall).

Recommendation	Department's response
Integrated management, marine protected areas	
1.57 Fisheries and Oceans Canada should • finalize and implement its operational guidance for integrated management planning, including marine protected areas, in the five priority ocean areas; and • plan and manage its resources to ensure that the oceans commitments and targets in the annual report on plans and priorities, the *2005–2006 Sustainable Development Strategy*, and the 2005–2010 Strategic Plan will be met. This should also include oceans commitments specific to the Department that were made at the 2002 World Summit on Sustainable Development. (1.31–1.56)	Fisheries and Oceans Canada is implementing operational guidance and supporting documentation in each of the five priority large ocean management areas. Structures are in place to support processes and provide the necessary guidance so that the development of the Oceans Action Plan (OAP) Phase I deliverables can proceed and evolve, with the involvement of partners and stakeholders. Service level agreements between the Assistant Deputy Minister, Oceans and each region responsible for OAP Phase I deliverables are the basis by which semi-annual and annual progress against commitment and targets in line with the funding received will be monitored. Commitments will be reported to Parliament annually through the report on plans and priorities and performance report using the Department's new program activity architecture, which for the first time, breaks out budget and performance information for oceans. In addition, reporting on commitments will be guided by the OAP Phase I results-based management accountability framework with a formative evaluation to be completed in 2006.

Recommendation	Department's response
Accountability for implementation	
1.68 Fisheries and Oceans Canada should • finalize and implement an accountability framework for its oceans management activities; • provide sufficient relevant and reliable financial and other performance information in its annual report on plans and priorities and annual performance report to allow Parliament to hold the Department to account for its oceans-management activities; and • improve communications to the public, including periodic information on the state of the oceans. (1.58–1.67)	A results-based management and accountability framework for Canada's Oceans Action Plan (OAP) Phase I is complete but, due to its two-year timeframe, it focusses on outputs not outcomes. A formative evaluation of the OAP will take place in 2006. Longer-term outcomes to achieve healthy oceans will be developed over time, and the framework will be revised as necessary for future phases of the OAP in 2006 and beyond. The new program activity architecture introduced in 2005 will provide transparent financial reporting of oceans activities. In addition, management tools for tracking OAP resources will be developed by fall 2005. Fisheries and Oceans Canada will identify tools for effective communication of oceans programming and elaborate products to implement Canada's Oceans Action Plan Phase I communications strategy (fall 2005 through April 2007). The Department will lead proactive communication of OAP deliverables, including working with other federal organizations, as well as provinces and territories, aboriginal organizations, and stakeholders. There will be a series of ministerial announcements beginning in May 2005. Annual state-of-the-oceans regional science reports will provide the baseline for understanding oceans and ecosystems. Fisheries and Oceans Canada recognizes the value of broader and national level reports; however, given resource limitations, the focus in Phase I will be on knowledge development and communication in the targeted context of the development of integrated management plans in priority areas. Ecosystem overviews and the identification of sensitive areas will be completed for each of the five priority large ocean management areas by 2007.

Report of the
Commissioner of the Environment and Sustainable Development
to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the
Commissioner of the Environment and Sustainable Development
to the House of Commons

Chapter 2
Ecological Integrity in Canada's National Parks

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

2

Ecological Integrity in Canada's National Parks

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

Significant examples of Canada's natural heritage 3
Stressors threaten the ecological integrity of national parks 3
The Parks Canada Agency 6
Focus of the audit 9

Observations and Recommendations 10

Responding to the Panel on Ecological Integrity 10

Parks Canada is acting on its commitments and expects to provide an update on progress 11

Reporting to Parliament on the state of protected areas 12

Improvements to the state of protected heritage areas reports are needed 14

Monitoring and restoration 16

Significant issues in ecological integrity are being addressed, but improvements are needed 17
A priority needs to be put on updating park management plans 17
Management of projects needs to be strengthened in certain areas 20
Using monitoring and restoration for park management purposes 21
Enhancing public education and visitor experience 22
Parks Canada is implementing measures to improve monitoring and restoration 23

Conclusion 26

About the Audit 28

Appendix

List of recommendations 31

Ecological Integrity in Canada's National Parks

Main Points

What we examined

Parks Canada is responsible for maintaining and restoring the ecological integrity of Canada's 41 national parks. It is also responsible for fostering public understanding, appreciation, and enjoyment of national parks in ways that ensure the ecological integrity of these places for present and future generations. In addition to national parks, Parks Canada manages a system of national historic sites and a system of national marine conservation areas.

This audit looked at how well Parks Canada plans and manages selected ecological monitoring and restoration activities in 12 national parks and uses these activities to enhance public education and visitor experience. Parks Canada is required to report to Parliament on the state of Canada's national parks every two years. This audit examined the quality of the reports Parks Canada produced on the state of national parks in 1997, 1999, and 2001. We did not examine the 2003 report as it had not been released at the time of undertaking our audit.

Why it's important

Canada's national parks represent significant examples of Canada's natural heritage. National parks have benefited past and current generations and represent an important legacy to future generations. A variety of factors called "stressors" affect ecosystems, and more specifically, biodiversity and related processes in national parks. These stressors from both within and outside national parks range from overuse of parks by visitors to natural resource development along their borders. These stressors jeopardize the range of benefits Canadians get from national parks and the very reasons why they are valued.

Along with public education and partnerships, monitoring and restoration are important activities that Parks Canada uses to maintain and restore ecological integrity in national parks. Good monitoring of biodiversity, ecosystem health, and stressors provides information on the state of parks that is vital to good park management and public education. Good restoration programs, such as prescribed burning and recovery of species at risk, can help restore natural ecosystem processes in national parks and help reverse the loss of species and biodiversity.

What we found

- In the 12 parks we examined, significant issues in ecological integrity, including issues related to biodiversity, ecosystem functions, and stressors, are being addressed through monitoring and restoration activities, but gaps in coverage exist. We also found gaps in how these activities are planned and managed. For example, at the park level, the central planning document is the park management plan. However, in six of the twelve parks these plans are not up-to-date, and annual reports on the implementation of these plans are not being produced on a regular basis by all parks.
- Increasing understanding through public education is fundamental to maintaining and restoring ecological integrity. In this regard, objectives for enhancing public education through monitoring and restoration are lacking at the park level, and the results of monitoring and restoration projects are not used to full advantage in park-level communications materials.
- With new funding received in 2003 ($75 million over five years and $25 million annually thereafter), Parks Canada is implementing measures to improve monitoring and restoration and their use in enhancing public education and visitor experience. It is important that these measures be successful and consistently applied across individual parks. Good monitoring, restoration, and public education programs are essential for Parks Canada to meet its mandate of maintaining or restoring ecological integrity and fostering public awareness and enjoyment of national parks.
- The 1997 state of the parks report was relatively good in terms of setting baselines on the state of parks. However, the subsequent two reports did not make use of the potential offered by the 1997 report, making it difficult to determine how the state of parks has changed. Overall, these reports need to report more consistently on changes and trends in the state of parks over time. More information on the results of Parks Canada's actions is also needed.

Parks Canada has responded. Parks Canada has accepted our recommendations. Its responses, which follow the recommendations in the chapter, indicate the actions it intends to take.

Introduction

Significant examples of Canada's natural heritage

The Marsh Boardwalk winds through the wetlands of Point Pelee National Park. Renowned for its concentrations of migrating birds and monarch butterflies, Point Pelee has been designated as a nationally important bird area, an international monarch butterfly reserve, and an internationally important wetland.

2.1 Temperate rainforests, jagged mountain peaks, habitats rich in biodiversity, sand dunes and sandstone cliffs—this describes just some of the diverse natural heritage represented by Canada's national parks. However, national parks are not just protected because of their beautiful landscapes and seascapes. National parks play an important role in conserving biodiversity in Canada; they help sustain wildlife populations and protect critical habitats, watersheds, wetlands, and rivers. Home to a diverse number of species such as caribou, grizzly bears, and many species of plants and animals considered to be at risk, national parks are important sources of natural heritage in Canada. These parks have benefited past and current generations and represent an important legacy to future generations.

2.2 National parks provide economic benefits and are important to Canada's tourism sector. The national park system draws millions of visitors from across Canada and across the world. Several national parks are icons for the regions they are located in. There are 41 national parks and national park reserves in Canada (exhibits 2.1 and 2.2).

Stressors threaten the ecological integrity of national parks

2.3 A variety of factors called "stressors" affect ecosystems, and more specifically biodiversity and related processes in national parks. They originate from both within and outside national parks and threaten their ecological integrity (Exhibit 2.3).

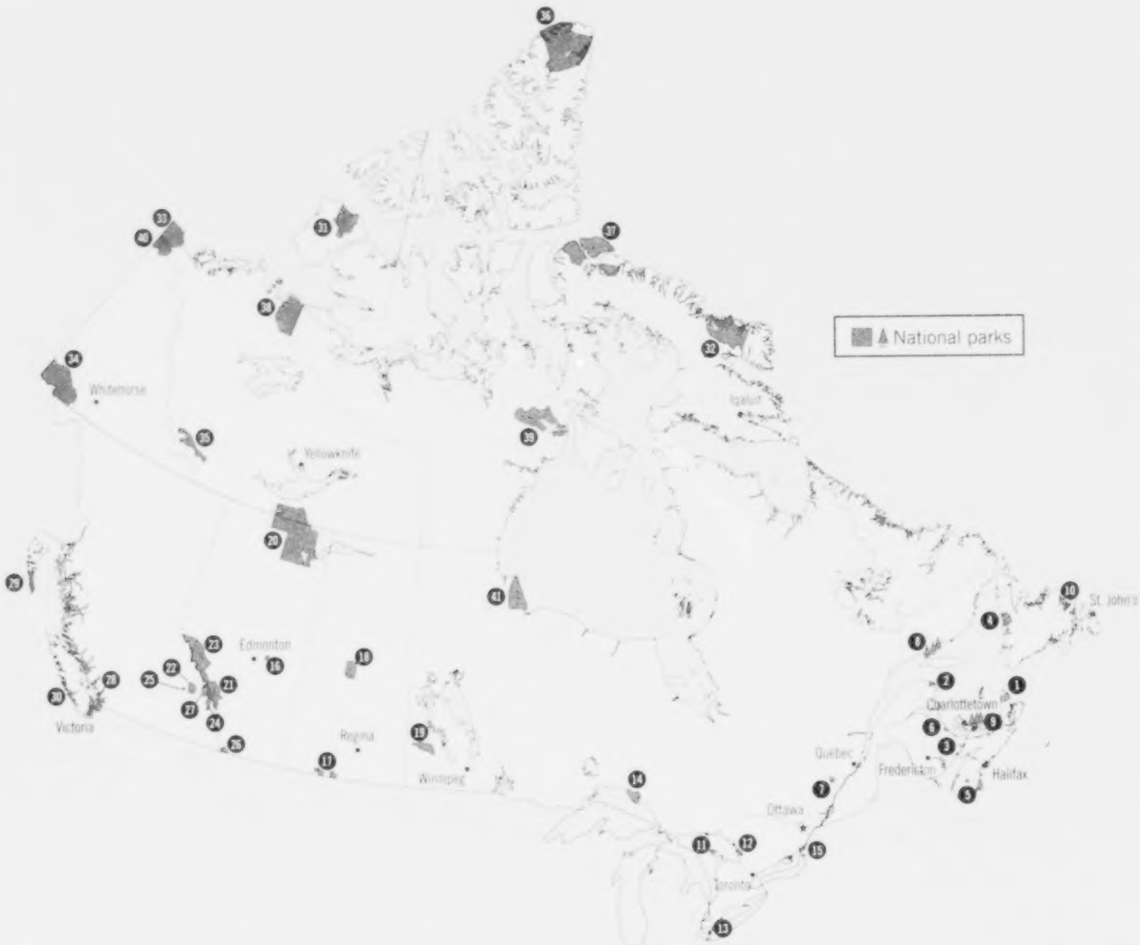
2.4 In 1998, based on concerns expressed about the ecological integrity of national parks, the Minister of Canadian Heritage created an independent Panel on the Ecological Integrity of Canada's National Parks. The Panel was asked to assess the strengths and weaknesses of Parks Canada's approach to maintaining ecological integrity and to provide advice and recommendations on how best to ensure that ecological integrity is maintained across the system of Canadian national parks. In 2000 the Panel released its report, *Unimpaired for Future Generations? Protecting Ecological Integrity with Canada's National Parks*. In its report, the Panel concluded that national parks were under threat from stressors and that unless action is taken, deterioration across the whole system will continue.

Did you know?

- There were an estimated 11.2 million person-visits to Canada's national parks in 2003–2004.
- Two Canadian national parks (Point Pelee and Wood Buffalo) contain wetlands of international importance.
- Nine national parks have been designated as world heritage sites as part of the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) World Heritage List.
- As of January 2005, of the species considered to be at risk in Canada, 135 may be found in national parks.

Source: Parks Canada Agency

Exhibit 2.1 **National parks and national park reserves of Canada**


National parks
Whitehorse
Yellowknife
Iqaluit
St. John's
Edmonton
Victoria
Regina
Winnipeg
Charlottetown
Quebec
Fredericton
Halifax
Ottawa
Toronto

There are 41 national parks and national park reserves in Canada that have been grouped into six bioregions for monitoring and reporting purposes.

Atlantic/Quebec

1. Cape Breton Highlands
2. Forillon
3. Fundy
4. Gros Morne (WHS)
5. Kejimkujik
6. Kouchibouguac
7. La Mauricie
8. Mingan Archipelago*
9. Prince Edward Island
10. Terra Nova

Great Lakes

11. Bruce Peninsula
12. Georgian Bay Islands
13. Point Pelee
14. Pukaskwa
15. St. Lawrence Islands

Interior Plains

16. Elk Island
17. Grasslands
18. Prince Albert
19. Riding Mountain
20. Wood Buffalo (WHS)

Mountain

21. Banff (WHS)
22. Glacier
23. Jasper (WHS)
24. Kootenay (WHS)
25. Mount Revelstoke
26. Waterton Lakes (WHS)
27. Yoho (WHS)

Pacific

28. Gulf Islands*
29. Gwaii Haanas*
30. Pacific Rim*

Northern

31. Aulavik
32. Auyuittuq
33. Ivvavik
34. Kluane* (WHS)
35. Nahanni* (WHS)
36. Quttinirpaaq
37. Sirmilik
38. Tuktut Nogait
39. Ukkusiksalik
40. Vuntut
41. Wapusk

WHS World Heritage Site
* Reserve

Source: Parks Canada Agency

Exhibit 2.2 **National parks and national park reserves of Canada: Person-visits and size**

Monitoring and reporting bioregions	Parks	Person-visits[1] 2003–04 (thousands)	Size[2] (square km)
Atlantic/Quebec	1. Cape Breton Highlands	396	948
	2. Forillon	155	240
	3. Fundy	316	206
	4. Gros Morne	118	1,805
	5. Kejimkujik	57	404
	6. Kouchibouguac	221	239
	7. La Mauricie	173	536
	8. Mingan Archipelago (Reserve)	34	151
	9. Prince Edward Island	873	27
	10. Terra Nova	263	397
Great Lakes	11. Bruce Peninsula	209	154[3]
	12. Georgian Bay Islands	34	26
	13. Point Pelee (including Middle Island)	286	15
	14. Pukaskwa	8	1,878
	15. St. Lawrence Islands	56	8
Interior Plains	16. Elk Island	189	194
	17. Grasslands	5	906[3]
	18. Prince Albert	240	3,874
	19. Riding Mountain	248	2,969
	20. Wood Buffalo	1	44,802
Mountain	21. Banff	2,935	6,641
	22. Glacier	599	1,349
	23. Jasper	1,687	10,878
	24. Kootenay	391	1,406
	25. Mount Revelstoke	data included with Glacier Park	260
	26. Waterton Lakes	371	505
	27. Yoho	501	1,313
Pacific	28. Gulf Islands (Reserve)	no data	34
	29. Gwaii Haanas (Reserve)	2	1,495
	30. Pacific Rim (Reserve)	764	511
Northern	31. Aulavik	0.09	12,200
	32. Auyuittuq	0.5	19,089
	33. Ivvavik	0.1	9,750
	34. Kluane (Reserve)	39	22,061
	35. Nahanni (Reserve)	1	4,766
	36. Quttinirpaaq	0.3	37,775
	37. Sirmilik	0.6	22,200
	38. Tuktut Nogait	no data	16,340
	39. Ukkusiksalik	no data	20,558
	40. Vuntut	no data	4,345
	41. Wapusk	1	11,475
Total		**11,175 person-visits**	**264,730 square km**

[1] Person-visits are defined as persons entering a park for recreational, educational, or cultural purposes during operating hours. Through traffic, commercial traffic, persons residing within a park, and staff are excluded. In addition, persons re-entering on the same day and persons staying overnight in a park do not constitute new person-visits. For some parks, person-visit data are estimated or preliminary.

[2] Size refers to the official size of a park in the Surveyor Generals' legal description in the *Canada National Parks Act*, or land committed by federal-provincial agreement. Changes to park boundaries may be made over time, for example, in the case of settling a land claim.

[3] Grasslands and Bruce Pennisula National Parks are not yet completed. Once completed, the parks will have the size indicated in the table.

Source: Parks Canada Agency

Exhibit 2.3 Examples of stressors affecting the ecological integrity of national parks

- When people use unauthorized trails over sensitive sand dunes in Prince Edward Island National Park, it can affect unique dune systems, dune vegetation, and the habitat of the endangered piping plover.
- Forestry operations in the vicinity of Forillon National Park can affect wildlife habitat in the greater park ecosystem.
- The presence of wildlife disease in the Riding Mountain National Park region poses a risk to wildlife in the park.
- Natural-resource development activities that occur in the greater park ecosystem of Jasper National Park can lead to habitat fragmentation and can put pressure on the ecological integrity of the park.
- Natural-resource development activities in the vicinity of Pacific Rim National Park Reserve can affect its biodiversity and ecosystems.
- Climate change and long-range transport of pollution pose a threat to northern parks, such as Quttinirpaaq.

An unauthorized trail cuts through a sand dune in Prince Edward Island National Park. The ecological integrity of national parks is jeopardized by a variety of stressors, including those that result from visitors' actions.

2.5 The Panel made a total of 127 recommendations including that the federal government allocate substantial new funding and additional resources to implement the recommendations contained in its report. The Panel recommended that $328 million be allocated to address its recommendations over five years, with $85.5 million in annual funding thereafter.

The Parks Canada Agency

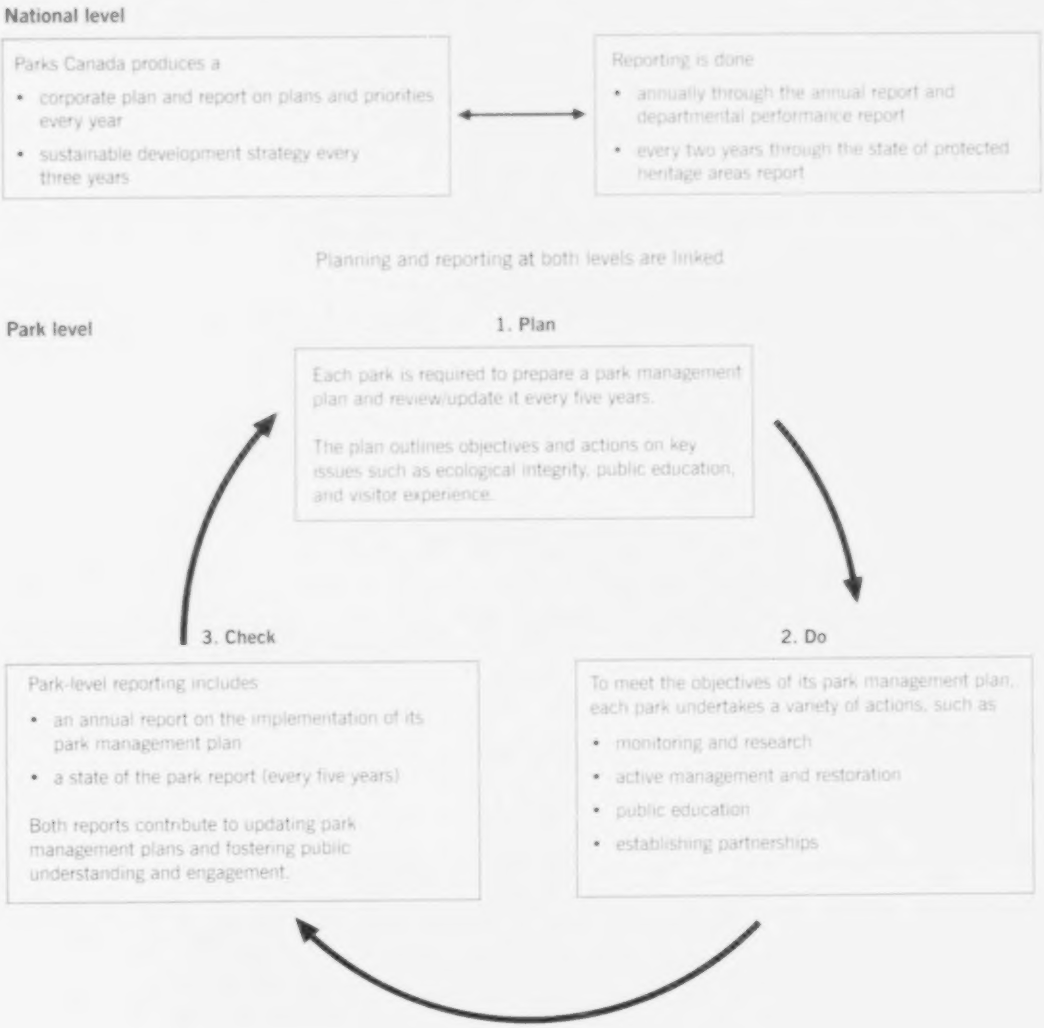
2.6 The Parks Canada Agency (Parks Canada) is responsible for the management of national parks. Parks Canada's mandate is to protect and present nationally significant examples of Canada's natural heritage and foster public understanding, appreciation, and enjoyment in ways that ensure the ecological integrity of these places.

2.7 Parks Canada undertakes a variety of activities in regards to ecological integrity, including monitoring and researching ecological issues, actively managing and restoring aspects of ecological integrity, and delivering public education activities. Many of Parks Canada's activities involve a diverse range of partners, such as universities, industry, local environmental groups, and volunteers.

2.8 Parks Canada's planning and reporting framework is presented in Exhibit 2.4. At the national level, Parks Canada's corporate plan, report on plans and priorities, and sustainable development strategy are the key planning documents that set out a five-year plan for the Agency. Parks Canada's annual report, departmental performance report, and state of protected heritage areas report are the key reporting documents at the national level. These planning and reporting documents are required by statute, including the *Canada National Parks Act* (2000) and the *Parks Canada Agency Act* (1998).

2.9 At the park level the key planning document is the park management plan, which is required by the *Canada National Parks Act*. Parks are legally required to review (with public consultations), update their park management plans, and table any amendments in Parliament every five years. As a result of changes to Parks Canada's guide to

Exhibit 2.4 **Planning and reporting at the national and park levels**



National level

Parks Canada produces a

- corporate plan and report on plans and priorities every year
- sustainable development strategy every three years

Reporting is done

- annually through the annual report and departmental performance report
- every two years through the state of protected heritage areas report

Planning and reporting at both levels are linked

Park level

1. Plan

Each park is required to prepare a park management plan and review/update it every five years.

The plan outlines objectives and actions on key issues such as ecological integrity, public education, and visitor experience.

2. Do

To meet the objectives of its park management plan, each park undertakes a variety of actions, such as

- monitoring and research
- active management and restoration
- public education
- establishing partnerships

3. Check

Park-level reporting includes

- an annual report on the implementation of its park management plan
- a state of the park report (every five years)

Both reports contribute to updating park management plans and fostering public understanding and engagement.

Visitors attend the marine life interpretation program at Grande-Grève, Forillon National Park. National parks provide many opportunities for learning about Canada's natural heritage.

Photo: Parks Canada Agency

management planning in 2001, each park is also required to prepare an annual report on the implementation of its park management plan, and every five years, prepare a state of the park report. The state of the park report is to provide an assessment of the state of, and trends in, a park's ecological integrity and an evaluation of management actions affecting the maintenance or restoration of ecological integrity.

2.10 The majority of national parks are expected to produce their first state of the park reports between April 2006 and March 2008. Both the annual report and state of the park report are meant to be major contributors to updating the management plan. By providing an assessment of the state of parks, both the national-level state of protected heritage areas report and the park-level state of the park report contribute to fostering public understanding and can inform park management and others on actions that may need to be taken to maintain or restore ecological integrity.

Ecological integrity—"Ecological integrity means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic (non-living) components and the composition and abundance of native species and biological communities, rates of change, and supporting processes."

Source: *Canada National Parks Act*

2.11 Ecological integrity **"shall be the first priority."** The *Canada National Parks Act* requires that the maintenance or restoration of ecological integrity "shall be the first priority of the Minister when considering all aspects of the management of parks." The *Canada National Parks Act* also states that national parks are "dedicated to the people of Canada for their benefit, education, and enjoyment . . . and the parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations." Additional parts of Parks Canada's mandate are also set out in the *Parks Canada Agency Act*.

2.12 In 2003, Parks Canada received new funding aimed at enhancing the Agency's ability to monitor and restore the ecological integrity of Canada's national parks. The funding amounted to $75 million over five years (23 percent of what the Panel recommended) and $25 million in annual funding thereafter (29 percent of what the Panel recommended). The federal government announced as part of its 2005 budget that Parks Canada would receive an additional $60 million over the next five years and $15 million in annual funding thereafter to enhance and expand existing ecological integrity measures.

2.13 Parks Canada has established long-term objectives related to maintaining and improving the ecological integrity of national parks. These long-term objectives include the following:

- Having monitoring and reporting systems for ecological integrity that are fully functioning in all national parks by March 2009
- Having park management plans that are up-to-date and consistent with Parks Canada's latest management plan guidelines by March 2010
- Improving aspects of the state of ecological integrity in each of Canada's national parks by March 2014

The new funding received by Parks Canada in 2003 is playing an important role in enabling it to make progress toward its objectives through investments in improved ecological-integrity monitoring and restoration activities.

Focus of the audit

2.14 Our audit examined three areas:

- Whether the Agency could demonstrate that progress had been made on certain commitments made in response to the Panel (as contained in Part 1 of *First Priority*);
- Whether the information contained in the State of the Parks 1997 Report and the 1999 and 2001 state of protected heritage areas reports was relevant, meaningful, and balanced; and whether the reports contained examples of how Parks Canada's actions have made a difference; and
- Whether monitoring and restoration activities were planned and managed effectively, and used for park management purposes, such as enhancing public education and visitor experience.

More information on our audit objectives, scope, approach, and criteria is provided in the **About the Audit** section at the end of the chapter.

Observations and Recommendations

Responding to the Panel on Ecological Integrity

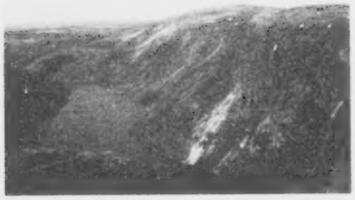
2.15 **Parks Canada's action plan.** In 2000, Parks Canada issued an action plan in response to the report of the Panel on Ecological Integrity. The action plan included immediate and longer-term commitments related to the four following areas:

- **Making ecological integrity central in legislation and policy.** Commitments included creating new national park legislation that would reconfirm that maintaining ecological integrity is the first priority of Parks Canada; developing a charter for Parks Canada that would highlight the importance of ecological integrity; and accelerating the legal designation of wilderness areas in national parks.
- **Building partnerships for ecological integrity.** Commitments included working to improve relationships and co-operative activities with aboriginal peoples, working with others to advance park values within greater park ecosystems, and working with others to expand the national park system.
- **Planning for ecological integrity.** Commitments included revising the Parks Canada guide to management planning, and ensuring that the maintenance of ecological integrity is the primary consideration in capital redevelopment projects within parks.
- **Renewing Parks Canada in support of its ecological-integrity mandate.** Commitments included establishing the position of Executive Director, Ecological Integrity, within Parks Canada, and developing and implementing a training and orientation program in ecological integrity for Parks Canada staff.

2.16 In 2001 Parks Canada released *First Priority*. Part 1 of *First Priority* provided an initial update on the progress Parks Canada was making on the commitments contained in its 2000 action plan. We examined whether Parks Canada could demonstrate that it was making progress since the release of *First Priority* on selected commitments related to legislation and policy, partnerships, and planning for ecological integrity. We expected that Parks Canada was acting on its commitments and had procedures in place to monitor and report on the progress of these commitments.

Parks Canada is acting on its commitments and expects to provide an update on progress

2.17 Actions have been taken. Since the release of *First Priority* in 2001, Parks Canada has been taking actions related to its commitments. For example, the Agency produced a *Parks Canada Charter* in 2002 which underscores Parks Canada's ecological integrity mandate, and work is being done to legally declare wilderness areas (Exhibit 2.5). The Agency has established partnerships in support of ecological integrity, which have resulted in (among other things) the establishment of the Gros Morne Institute for Sustainable Tourism, and the protection of habitat on more than 100 square kilometres of private ranch lands adjacent to Waterton Lakes National Park.



This view is taken from the top of Gros Morne Mountain. National parks, such as Gros Morne in Newfoundland, are icons for the regions they are located in.

2.18 Monitoring of commitments is a work in progress. In 2004 Parks Canada began to systematically monitor the status of its commitments to determine progress since the release of *First Priority* in 2001. Parks Canada was unable to provide us with a summary of its assessment during the examination phase of our audit as the results were still being analyzed.

2.19 An update is expected. There has been no consolidated reporting by Parks Canada on the status of its commitments since the release of *First Priority*. However, officials from Parks Canada informed us that an update on *First Priority* is expected to be produced by the end of 2005.

Exhibit 2.5 **Legal designation of wilderness areas**

The *Canada National Parks Act* permits the Governor in Council, by regulation, to declare any area of a national park that exists in a natural state or that is capable of returning to a natural state, to be a "wilderness" area. The result of an area being designated as wilderness means the minister cannot permit any activities in that area that would negatively impact the wilderness character of the area.

In response to the Panel on Ecological Integrity, Parks Canada committed to accelerate the legal designation of wilderness areas in national parks across the national park system. In its report the Panel noted that the formal designation of sensitive or undeveloped areas within parks as wilderness areas was an excellent way to maintain ecological integrity within national parks.

In *First Priority*, Parks Canada reported that wilderness areas had been declared in four parks (Banff, Jasper, Yoho, and Kootenay). According to Parks Canada, as of April 2005, no other wilderness areas had been declared, although five parks (Fundy, Waterton Lakes, Nahanni, Kluane, and Vuntut) were in various stages of finishing the preparation work necessary to have land declared as wilderness areas. There are several factors, such as public consultations and mapping of boundaries, that have to be considered when legally declaring wilderness areas.

2.20 It is important that Parks Canada follow through on its commitments and periodically report to Parliament and the Canadian public on the progress it is making. Not only is good reporting a key tool for ensuring effective accountability, it also shows that steps are being taken to maintain and restore the ecological integrity of national parks.

2.21 **Recommendation.** In addition to the update it expects to release later this year, Parks Canada should periodically report to the public on the progress it is making on any outstanding commitments from its 2000 action plan, as contained in Part 1 of *First Priority*. For these commitments, Parks Canada should clearly indicate what it expects to achieve in terms of results, who will be responsible for contributing to these results, and what the related timelines are.

Agency's response. Agreed. Parks Canada will release an update to the *First Priority* report in the fall of 2005, which will provide a status report on progress on the Parks Canada EI Action Plan as well as the 127 recommendations of the Panel on the Ecological Integrity of Canada's National Parks. Future reports on the Parks Canada EI Action Plan will occur through the Parks Canada Agency's annual report, the biennial state of protected heritage areas reports, and the Minister's Round Table, as well as periodic public interest reports (for example, *Action on the Ground—Ecological Integrity in Canada's National Parks*, Parks Canada 2005).

Reporting to Parliament on the state of protected areas

2.22 **An important vehicle for increasing awareness about the state of national parks.** The *Canada National Parks Act* requires that Parks Canada report to Parliament on the state of all national parks at least every two years.

2.23 We examined the State of the Parks 1997 Report, as well as the 1999 and 2001 state of protected heritage areas reports (Exhibit 2.6). The reports were originally called the "state of the parks report" but were changed to the "state of protected heritage areas report" in 1998. As the report for 2003 had not been released at the time of undertaking our audit, it was not included in our examination. Our objective was to determine the extent to which reporting on monitoring and restoration in the reports is fair; we expected that a fair report would have the following qualities:

- **Be relevant.** The information contained in the reports would present in context, tangible and important accomplishments against the objectives and costs.

Exhibit 2.4 Key aspects of the state of the parks and state of protected heritage areas reports[1]

State of the Parks 1997 Report	*State of Protected Heritage Areas 1999 Report*	*State of Protected Heritage Areas 2001 Report*
Overall ecological integrity ranking of individual parks presented. Limited financial information.[2]	No reference to ecological integrity ranking of individual parks. No financial information reported.[2]	No reference to ecological integrity ranking of individual parks. No financial information reported.[2]
Biodiversity		
Baseline information reported on the number of plants and animals, species at risk, locally extinct animal species, and exotic plants and animals in national parks; no trend information reported.	Baseline information reported on plant and animal species. Names of endangered and threatened species in national parks listed.	Same baseline information on plants and animal species as 1999. Baseline information on the number of species in national parks.
Discussions on the recovery of the Blanding's turtle in Kejimkujik National Park, sport fishing in La Mauricie National Park, the impacts of landscape fragmentation on biodiversity, the status of woodland caribou, grizzly bear habitat research, the recovery of the piping plover in east coast national parks, and trends in clam stocks in Kouchibouguac National Park.	Discussions on elk restoration activities in Ontario, wood turtle conservation concerns in La Mauricie National Park, restoration of fish populations (fish weir construction at the Saint-Ours Canal), and the protection of bat colonies at Grosse-Ile and the Irish Memorial National Historic Site.	Discussions on trophic structure, the Parks Canada species at risk program, the Vianney-Legendre Fishway at the Saint-Ours Canal, preservation actions related to the wolf in La Mauricie National Park, activities aimed at controlling non-native species in Gwaii Haanas National Park Reserve, and the recovery of the piping plover.
Ecosystem functions		
Discussions on fire restoration in national parks and savanna restoration in Point Pelee National Park.	Discussions on primary productivity with baseline figures on vegetation index values for selected parks, the use of prescribed burns with comparison between actual performance and what is needed to maintain fire-dependent ecosystems, and the effects of lesser snow goose populations on the ecosystems of Wapusk National Park.	Discussions on primary productivity with baseline figures and some limited trend information for selected parks; some links to data reported in 1999. Profile of fire restoration activities. Discussions on prescribed burning in Elk Island National Park, restoration of Grafton Lake in Kejimkujik National Park, and species extirpation, including the link between body size and locally extinct species.
Stressors		
Baseline information on the presence of stressors and related trends. Discussion on the state, and loss of, amphibian species in Point Pelee National Park.	Follow-up on the status of top five stressors reported on in the 1997 report, including state of top five stressors and types of actions being taken in response to them. Discussion on climate and air quality and national parks with baseline information on selected parks. Discussions on environmental risks as well as softshell clam harvesting at Kouchibouguac National Park, non-native plant control in Jasper National Park, carbon budgets and air toxins at Prince Albert National Park, pesticide accumulation in amphibians at Point Pelee National Park, and reducing wildlife mortality in Banff National Park.	Discussions on land use and habitat fragmentation, climate change and national parks, stressors on northern caribou, restoration at Point Pelee National Park, and wildlife corridor restoration in Banff National Park.

[1] State of the park reports became state of protected heritage areas reports as a result of the 1998 *Parks Canada Agency Act*.

[2] Limited financial information specific to ecological integrity can be found in Parks Canada's corporate plans and annual reports.

- **Be meaningful.** The information contained in the reports would tell a clear performance story, describing expectations and benchmarks against which comparisons are made.
- **Be attributable.** The information in the reports would demonstrate, in a reasonable fashion, how Parks Canada's actions have made a difference.
- **Be balanced.** The information in the reports would present a representative yet clear picture of the full range of activities and results (both positive and negative), which would not mislead the reader.

Improvements to the state of protected heritage areas reports are needed

2.24 The 1997, 1999, and 2001 reports provide good descriptions of the types of activities being undertaken in national parks and the types of stressors that are putting the ecological integrity of national parks at risk. Information contained in the State of the Parks 1997 Report was relevant and meaningful, especially in terms of the baseline information contained in the report; however, the 1999 and 2001 reports did not make use of the potential offered by the 1997 report, making it difficult to determine how the state of parks has changed over time. From this perspective, the quality of reporting declined. Overall, Parks Canada needs to improve the meaningfulness and relevance of its state of protected heritage areas reports in the following ways:

This coal-processing plant is located near a national park. This is an example of one of the types of natural-resource development activities occurring in close proximity to national parks.

- Use baselines and benchmarks more consistently as a means of reporting on changes and trends in the state of ecological integrity over time. For example, the State of the Parks 1997 Report contained baseline information, such as an overall ecological-integrity ranking for national parks and the presence of, and trends in, stressors. While the state of some stressors was followed up in the 1999 report, the state of the stressors was only generally discussed in 2001. Neither the 1999, nor the 2001 reports provided an update on the overall ecological-integrity ranking of national parks presented in the 1997 report.
- Better explain its long-term reporting strategy and consistently apply its ecological-integrity reporting framework. Consistent reporting would allow for the comparison of trends to be made over time and provide more continuity between reports.
- Report more on outcomes. In the three reports we examined, case studies were used to illustrate important accomplishments. Although generally balanced and representative of the range of

issues facing national parks, most case studies contained too much descriptive text and focussed too much on activities rather than outcomes. The case studies would have been more relevant and meaningful if they included more information on results and outcomes being achieved. Several case studies did a good job of reporting on the outcomes associated with Parks Canada's actions and provided comparisons to benchmarks, but these were limited in number. Including more information on outcomes would also better demonstrate how Parks Canada's actions are making a difference.

- Provide more financial information, such as summary-level information of expenditures on maintaining and restoring ecological integrity. This would give readers a more complete picture of Parks Canada's efforts to maintain and restore ecological integrity and the cost of these efforts.
- Better describe the role and impact that external factors play and the contribution of other parties, such as industry or other levels of government, in maintaining and restoring ecological integrity. For example, the reports could include more concrete examples of the contributions other parties are making to address the impact of stressors.

2.25 **Recommendation.** Based on the strengths and weaknesses of prior reports, Parks Canada should improve future state of protected heritage areas reports in the following ways:

- Provide more continuity between reports by using baselines and benchmarks more consistently.
- Better explain its long-term reporting strategy.
- Include more information on results and outcomes being achieved, especially with respect to case studies.
- Provide more financial information.
- Include more concrete examples of the contributions of other parties to maintaining and restoring ecological integrity.

Agency's response. Agreed. Parks Canada will improve future state of protected heritage areas (SOPHA) reports using the results of this audit and a recently completed internal review. With new funding received in budgets 2003 and 2005, Parks Canada is implementing a system-wide ecological integrity monitoring and reporting program focussed on six to eight key indicators that will be monitored consistently in each national park over time. This program will be fully functional by March 2009. This will improve the ability of Parks Canada to report on a consistent basis, building on site-specific state of parks reports and the experience of previous reports.

Based on a review of internal and external stakeholders' information needs and communications priorities, Parks Canada will focus on producing significantly shorter, more concise, and consistent SOPHA reports in the future with an emphasis on high-level scientifically credible indicators of the state of heritage resources and results of efforts to maintain or improve these resources. Case studies will not be used to the same extent as previous SOPHA reports, and contributions of partners will be highlighted in other documents including the annual report and specialized publications, such as the recent *Action on the Ground—Ecological Integrity in Canada's National Parks* (Parks Canada, 2005). While some summary financial information may appear in the state of protected heritage areas report, the Agency will continue to report on planned and actual expenditures through the corporate plan and annual report, as required by the *Parks Canada Agency Act*.

Monitoring and restoration

2.26 Important activities for maintaining and restoring ecological integrity. Monitoring and research (monitoring) and active management and restoration (restoration) are important activities, along with activities such as public education and partnerships. Parks Canada uses these activities to maintain and restore ecological integrity in national parks. They can also be used to foster public understanding, appreciation, and enjoyment of national parks.

Although the East Road was restored in Point Pelee National Park, part of the road was left intact; it forms part of a self-guided interpretive trail, so visitors can see how things looked before restoration took place.

2.27 Monitoring biodiversity, ecosystem functions, and stressors can inform park officials (and other stakeholders) on the state of, and trends in, ecological integrity. This information can allow park officials to make informed decisions regarding the need for, and effectiveness of, restoration, and it forms the basis for park planning, reporting, and public education efforts.

2.28 Active management and restoration involves activities such as using prescribed burns to maintain biodiversity, controlling the populations of certain species (such as overabundant species and invasive, exotic or non-local species), managing harvesting activities such as fishing, recovering species at risk, reintroducing species, restoring degraded sites, and remediation of contaminated sites. These activities can help maintain and restore ecological integrity, and in some cases can involve significant investment.

2.29 **What we examined.** We examined monitoring and restoration activities to determine the following:

- if significant ecological-integrity issues facing parks were being addressed through monitoring and restoration,
- whether selected monitoring and restoration projects were being well managed, and
- whether activities and results associated with monitoring and restoration were being used for park management purposes, as well as for enhancing public education and visitor experience.

Did you know?

- Fire, as a natural event, plays a role in the evolution and maintenance of many park ecosystems.
- Until recently, fire was suppressed in national parks, which negatively affected a number of ecological processes.
- Fire suppression has changed many ecosystems, including vegetative structures and species, increasing the risk of catastrophic fires in significant areas.
- Parks Canada has reintroduced fire in the form of prescribed burns to restore and maintain ecosystems, as well as to reduce the risk around critical areas, such as endangered-species habitats and town sites.

Source: Parks Canada Agency

2.30 We focussed our examination on 12 parks to appreciate and understand what was going on at the field level. Parks were chosen to reflect a diversity of Parks Canada's activities and management conditions. Factors that we took into consideration when selecting the parks to be examined included size, location, number of visitors, and types and impacts of stressors. The 12 parks we examined are listed in the **About the Audit** section of this chapter. Because of the diversity in the park system, readers should not use our findings from this section of the audit to draw conclusions about the park system as a whole.

Significant issues in ecological integrity are being addressed, but improvements are needed

2.31 As a result of our examination, we identified projects that are under way, which address important issues in the ecological integrity of individual parks. For example, monitoring activities address different aspects of ecological integrity; efforts have been ongoing to recover species at risk. Attempts are being made to reintroduce fire as a natural ecosystem function using prescribed burns, and issues such as wildlife disease are being actively managed. However, as discussed below, we noted areas where improvements are needed in terms of how planning for these activities is undertaken and how individual monitoring and restoration projects are managed. We also identified opportunities where Parks Canada could improve how it uses monitoring and restoration to enhance public education and visitor experience.

A priority needs to be put on updating park management plans

2.32 To determine if significant issues in ecological integrity were being addressed through monitoring and restoration we examined plans for these activities. We expected that these plans had been reviewed, that planned and actual activities address ecological integrity priorities, and that gaps in monitoring and restoration had been identified.

2.33 New standards for park management plans. Both the *Canada National Parks Act* and Parks Canada's revised guide to management planning have set new standards for park management plans regarding ecological integrity. The guide to management planning indicates that ecological considerations are to be the foundation for the entire park management plan, and that the plan describe the current state of the park and contain specific objectives and actions a park will undertake to maintain or restore ecological integrity. Having up-to-date park management plans demonstrates that park staff have identified significant issues in ecological integrity and that they have determined the necessary monitoring and restoration activities to address these issues.

Long Beach Unit is located in Pacific Rim National Park Reserve. In part because of their landscapes and seascapes, national parks are important tourist destinations.

2.34 Updated park management plans are effective, but not all are up-to-date. Of the twelve parks we examined, four have park management plans that have been updated and/or tabled in Parliament within the last five years. In these parks, the park management plans did a reasonable job of explaining the issues facing these parks and outlining actions to address these issues. In the remaining parks, six have park management plans that are more than five years old and are in various stages of being reviewed and updated. Two parks do not have park management plans and are operating under interim management guidelines; these are prepared when guidelines are needed to direct essential park operations until an initial management plan is approved.

2.35 A wide variety of plans and strategies exist at the park level, which cover monitoring and restoration activities. For example, all 12 parks that we examined have work plans for ecological monitoring and reporting. Prepared in 2004, these plans include the following:

- a list of existing monitoring projects,
- a proposed suite of monitoring projects that would be used to provide information on the state of a park's ecological integrity, and
- a discussion on how this suite of projects lines up with the ecological integrity issues facing the park.

As for restoration, no similar overall work plan exists, but a variety of plans related to restoration issues (such as species at risk) exists at the park level.

2.36 Regional science advisory mechanisms being considered. Subjecting monitoring and restoration plans to review can help improve the quality and credibility of these plans, and it provides an opportunity to involve and engage external stakeholders, such as local residents, academic experts, as well as representatives from other levels of government and Aboriginal communities. The 12 parks we examined use a variety of means to review and consult on their monitoring and restoration plans. Although there are no standardized science advisory mechanisms in these 12 parks, we note that certain parks are considering putting in place science advisory mechanisms at the regional level. We encourage Parks Canada to follow these efforts and determine if similar mechanisms would be beneficial for other regions.

2.37 Some gaps in monitoring and restoration have been identified by Parks Canada. Staff at all of the 12 parks we examined have documented aspects of ecological integrity that are not being adequately monitored at the park level; staff at individual parks are considering these gaps as they develop their ecological monitoring and reporting work plans. The gaps relate to all aspects of Parks Canada's monitoring and reporting framework, including biodiversity, ecosystem functions, and stressors. Gaps in social science information, including information on visitors, were a commonly identified gap (Exhibit 2.7). The impacts of gaps in monitoring are generally known; however, the full costs of addressing these gaps and implementing the monitoring and reporting work plans have not yet been determined.

Exhibit 2.7 **Information on visitors—a commonly identified need**

Visitor use and impacts are important aspects in terms of maintaining and restoring ecological integrity in national parks. Parks Canada officials commonly raised social science research, including information on visitor use and impacts, as one such area that requires more information. This includes research on topics such as what visitors are doing in parks; where, when, and why they are doing it; and the physical, biological, and social impacts of visitor use.

2.38 Officials from individual parks identified examples of gaps in active management and restoration. Concerns have been expressed that even with the new funding it received in 2003, Parks Canada may not have the resources necessary to adequately address all of its active management and restoration needs. However, when compared to the gaps in monitoring, the gaps in these activities have not been as systematically identified or documented. It is important that these gaps are systematically documented and (along with monitoring needs) considered in the park-planning process.

2.39 **Recommendation.** Given that new standards are in place for park management plans, Parks Canada needs to ensure that updating these plans is a priority. To ensure that potential gaps in active management and restoration are understood, individual parks should assess their active management and restoration needs, establish clear objectives and key actions based on these needs, and identify gaps. This information, along with similar information for monitoring, should be included in future park management plans.

Agency's response. Agreed. The Parks Canada Corporate Plan 2005-06–2009-10 confirms that updating park management plans is an agency priority and identifies March 2010 as the target to have national park management plans up-to-date and consistent with the latest management guidelines. Parks Canada is currently revising its Guide to Management Planning to reflect new legislative and policy directions. The revised guidelines will include greater emphasis on managing for results and will require that national park management plans clearly define objectives and key actions for both monitoring and restoration.

Management of projects needs to be strengthened in certain areas

2.40 We examined selected monitoring and restoration projects to determine if they were being managed for results. We examined 69 projects, including 30 monitoring projects and 39 restoration projects. We expected that intended results were clearly stated for these projects, that project plans were in place, and that the status and results of projects were being measured and reported. Regarding monitoring projects, we also expected that data management protocols were documented, that data collection was being done consistently, and that information was accessible and was being analyzed to assist in decision making.

2.41 Of the monitoring projects we examined, 33 percent met all of the criteria we had set; an additional 57 percent met more than half of the criteria; and 10 percent met fewer than half of our criteria. The areas that required the most improvement included documentation of project methodology and data management protocols. Examples of projects that met our criteria include the monitoring of forest birds in Point Pelee National Park, caribou populations in Pukaskwa National Park, and groundfish in Pacific Rim National Park Reserve.

2.42 Of the 39 restoration projects that we examined, 51 percent met all of the criteria we had set; an additional 34 percent met more than half of the criteria; and 15 percent met less than half of our criteria.

The areas that required the most improvement related to the evaluation and reporting of projects. Examples of projects that met our criteria include the recovery of the piping plover in Prince Edward Island National Park, the management of white tailed deer in Point Pelee National Park, the management of bovine tuberculosis in Riding Mountain National Park, and the reintroduction of the swift fox in Grasslands National Park.

2.43 As a result of our examination, we identified projects that are under way, which address important aspects of ecological integrity. However, our findings demonstrate a need for more consistency in terms of how projects are managed and documented. We believe that a more consistent approach to managing, documenting, and reporting on monitoring and restoration projects would help address the areas in need of improvement noted above. This would also make it easier to compare results between parks and combine information from all parks for reporting in the national state of protected heritage areas reports.

Using monitoring and restoration for park management purposes

2.44 We expected that monitoring and restoration activities and the related results were being used for park management purposes, as well as for enhancing public education and visitor experience.

A prescribed burn taking place in Jasper National Park

Photo: Parks Canada Agency

2.45 **Using monitoring information.** There are good examples of monitoring being used for park management purposes (Exhibit 2.8). Parks Canada expects that monitoring information will also be used to form the basis of state of the park reports, specific to each park. These reports will be useful for enhancing public education and are expected to be used in updating park management plans. Of the 12 parks we examined, Jasper recently finalized its state of the park report.

2.46 **Using restoration projects.** There are also good examples of restoration projects being used to achieve park management objectives. The use of prescribed burns is one example of how parks use a restoration activity to restore ecological integrity. As mentioned in paragraph 2.42, one area that requires improvement is the evaluation and reporting of restoration projects. Reporting on results through the annual park management plan implementation report and the state of the park report are two means of addressing this issue and would provide opportunities for park staff to learn from, and use the results of, restoration activities as a means of implementing active, adaptive management techniques.

Exhibit 2.8 **Using monitoring for park management purposes**

The following are examples of how the results of monitoring are being used for park management purposes:

- In Pacific Rim National Park Reserve, the monitoring of groundfish was used for identifying rockfish conservation areas in the Park. Also in Pacific Rim, the monitoring of human-carnivore interactions has led to the introduction of the Bare Campsite Program aimed at reducing wildlife incidents (primarily involving bears).
- The monitoring of human activity in critical wildlife areas within Jasper National Park has led to a new active management project aimed at reducing informal trail use.
- Research on, and monitoring of, wildlife disease is being used to manage bovine tuberculosis in the Riding Mountain National Park region. This has involved fencing, field studies, population reductions, advisory committees, and partnerships.
- The monitoring of the southern flying squirrel in Point Pelee National Park is being used to assess the long-term effectiveness of the early 1990s program that reintroduced the squirrel into the park.
- The monitoring of the endangered piping plover in Prince Edward Island National Park is used by park officials to determine recovery actions such as beach closures and public education campaigns.

Enhancing public education and visitor experience

2.47 Fundamental to maintaining and restoring ecological integrity. Increasing understanding through public education is fundamental to maintaining and restoring ecological integrity. In this regard, we expected that park staff would communicate the results of monitoring projects and engage visitors and others in restoration activities to enhance public education and visitor experience.

Kennedy Flats salmon habitat restoration exhibit near Pacific Rim National Park Reserve

2.48 Based on information individual parks provided, we identified several examples of monitoring and restoration projects that park staff used to enhance public education or visitor experience. Examples included the recovery of the piping plover in Prince Edward Island National Park, the East Road restoration project in Point Pelee National Park, the Firesmart/ForestWise Program in Jasper National Park, the recovery of the woodland caribou in Jasper National Park, integration of the Kennedy Flats Salmon Habitat Restoration Project into the "Salmon People" interpretation program at Pacific Rim National Park Reserve, and the dissemination of research findings on the Kokanee salmon in Kluane National Park Reserve.

2.49 **Opportunities are being missed.** Despite these efforts Parks Canada is missing opportunities to enhance public education and visitor experience. The following are examples of what we found.

- Of the 10 parks with park management plans, annual reports on the implementation of these plans are not being produced on a regular basis by all parks. We believe that regular reporting would provide more opportunities for parks to inform the public and other stakeholders about their monitoring and restoration activities.
- Communications strategies that outline objectives for enhancing public education and visitor experience through monitoring and restoration are not consistently produced at the park level. Clear objectives are important not only for setting direction, but also for reinforcing the importance of considering public education and visitor experience when designing and implementing monitoring and restoration activities.
- While communications materials, such as visitor guides and park Web sites, often include messages related to the broader theme of ecological integrity, opportunities exist to better incorporate actual results of monitoring and restoration projects and what they mean for individual parks. Using more concrete and real-time data could help increase awareness and understanding of ecological integrity and how it is being addressed by park staff.

Parks Canada is implementing measures to improve monitoring and restoration

2.50 **Important that new initiatives stay on track.** With the new funding it received in 2003, Parks Canada is implementing measures aimed at improving monitoring and restoration. If these measures are implemented as expected, Parks Canada will improve its ability to monitor and restore ecological integrity and address areas for improvement that we have identified for managing monitoring and restoration projects.

2.51 The following are some examples of the measures being taken.

- All national parks are working to have scientifically credible monitoring programs in place that address their ecological integrity goals. This includes programs that have improved data access and increased stakeholder involvement.
- Bioregional monitoring co-ordinators are being put in place to help parks review and improve their monitoring programs.

- A data management system is being developed that would improve access to monitoring information.
- Guidelines for monitoring are being developed to (among other things) improve the consistency of monitoring activities.
- To address needs surrounding social science research, a chief social scientist is being hired. In addition, information on topics such as visitors and their impacts on ecological integrity are being integrated into the monitoring programs of individual parks.

2.52 With respect to restoration, Parks Canada is putting in place guidelines to improve how restoration activities are managed. The guidelines for monitoring that are being developed also include guidance on monitoring the effectiveness of restoration activities and the importance of integrating effectiveness monitoring into project plans. Parks Canada is taking steps to improve how monitoring and restoration are used to enhance public education and visitor experience activities. This is done, for example, by developing a national communications strategy for ecological integrity and by preparing case studies of best practices that highlight examples of how Parks Canada is maintaining or restoring ecological integrity.

2.53 It is important that the measures Parks Canada is implementing be successful and consistently applied across individual parks. Good monitoring and restoration programs, and their integration with public education and visitor experience initiatives, are essential for Parks Canada to meet its mandate of maintaining or restoring ecological integrity and fostering public awareness and enjoyment of national parks. Without them, national parks are at risk of losing species and biodiversity, and Parks Canada will be limited in its ability to restore ecosystems and protect the natural heritage of national parks. For these reasons, it is important that Parks Canada closely monitor the progress it is making on these initiatives and take actions as necessary to make sure improvements stay on track.

2.54 **Recommendation.** Given the importance of monitoring, restoration, and enhancing public education and visitor experience; and in order to maximize its ability to successfully implement its initiatives in a consistent and sustainable manner, Parks Canada should do the following:

- Ensure that the measures it is taking to improve monitoring and restoration are completed and consistently implemented at the park level. This includes improvements to monitoring programs, and implementation of its data management system, and guidelines for monitoring and restoration.

- Ensure individual parks establish clear and concrete objectives and key actions for integrating public education and visitor experience with monitoring and restoration activities.
- Take necessary, corrective actions on a timely basis to ensure that the measures it is implementing are successful and consistently applied across individual parks.
- Publicly report on an annual basis, both at the national and individual park level, on the measures being taken to improve monitoring and restoration and on any issues that may affect the successful implementation and sustainability of its initiatives. Reporting at the individual park level should be part of an annual park management plan implementation report.

Agency's response. Agreed. As stated in the Parks Canada Corporate Plan 2005-06–2009-10, the Agency is committed to improving its ecological integrity monitoring and reporting, restoration, and public education programs, as well as the provision of opportunities for quality visitor experiences. With new funding received in budgets 2003 and 2005, Parks Canada is implementing a system-wide ecological integrity monitoring and reporting program focussed on six to eight key indicators that will be monitored consistently in each national park over time. This program will be fully functional by March 2009. Improved data management will be a key component of this program initiative. Parks Canada is developing an Intranet-based information management system that will document all monitoring protocols, standards and baselines, and will archive monitoring data under agreed metadata standards. Parks Canada has also hired seven bioregional monitoring specialists to support the implementation of the monitoring and reporting program in each part of the country. This will greatly improve the ability of Parks Canada to report on a consistent basis.

Parks Canada recognizes the ecological restoration of ecosystem structure and function is an ongoing challenge. The full need for restoration will only be known when EI monitoring programs are completed in 2009. The restoration need will also be a moving target as conditions change. Parks may be impacted by regional land-use changes or climate change. Guidelines for restoration activities are under development and will be finalized in 2006.

The revised guidelines for management planning will include greater emphasis on managing for results, will require that national park management plans clearly define objectives and key actions for both monitoring and restoration, and will promote the integration of monitoring and restoration activities with public education and visitor experience objectives and actions.

Recognizing that increased understanding through public education is fundamental to maintaining and restoring ecological integrity, Parks Canada will develop, over the next few years, learning strategies for each national park that will outline objectives for enhancing public education, including the integration of monitoring and restoration activities.

As required by legislation, Parks Canada will continue to report publicly through the Parks Canada Agency Corporate Plan, the annual report, as well as the biennial state of parks reports, and the Minister's Round Table. As required by the revised guide to management planning, field unit superintendents are accountable for ensuring that park management plan implementation reports are completed on an annual basis, as well as state of parks reports every five years, as a prelude to revising the park management plan.

Conclusion

2.55 National parks represent important parts of Canada's natural heritage, providing a variety of environmental, social, and economic benefits to Canadians and Canadian communities. Various stressors affect the ecological integrity of national parks, jeopardizing the range of benefits Canadians get from these parks and the very reasons why they are valued.

2.56 Parks Canada made commitments in response to the Panel on Ecological Integrity, which concluded in 2000 that national parks were under serious pressure and that, without immediate and long-term action, the ecological integrity of parks was at risk. Parks Canada has been acting on its commitments and expects to release an update on the status of these commitments by the end of 2005.

2.57 Parks Canada's reports on the state of protected heritage areas are important vehicles for increasing awareness about the state of Canada's national parks. The reports we examined provide good descriptions of the types of activities being undertaken in national parks and the types of stressors that are putting the ecological integrity of national parks at risk. However, Parks Canada needs to improve these reports, for example, by using baselines and benchmarks more consistently to report on changes and trends in the state of parks over time.

2.58 In the 12 parks we examined, significant issues in ecological integrity are being addressed through monitoring and restoration activities, but gaps exist. Improvements are needed in how these activities are planned and managed. For example, park management plans in six of the twelve parks need to be updated; annual reporting on the implementation of these plans needs to be more regular; and the identification of restoration gaps needs to be more systematic. Opportunities also exist to better use monitoring and restoration as a means of enhancing public education and visitor experience.

2.59 Parks Canada is implementing measures aimed at improving monitoring and restoration. If these measures are implemented as expected, Parks Canada will improve its ability to monitor and manage ecological integrity and address areas for improvement we have identified with respect to managing monitoring and restoration projects. It is important that the measures Parks Canada is implementing be successful and consistently applied across individual parks. Good monitoring, restoration, and public education programs are essential for Parks Canada to meet its mandate of maintaining or restoring ecological integrity and fostering public awareness and enjoyment of national parks. Without them, national parks are at risk of losing species and biodiversity, and Parks Canada will be limited in its ability to restore ecosystems and protect the natural heritage of national parks.

About the Audit

Objectives

Our audit had the following objectives:

- Determine the extent to which Parks Canada can demonstrate progress on selected commitments in Part 1 of *First Priority*.
- Determine the extent to which the reporting on monitoring, research, active management, and restoration in the reports on the state of protected heritage areas and the state of the parks is fair.
- Determine if monitoring and research on ecological integrity address significant issues about ecological integrity that parks face; whether selected monitoring and research activities are being managed to achieve results; and whether activities and results related to monitoring and research activities are being used for maintaining or restoring ecological integrity, as well as enhancing public education and visitor experiences.
- Determine if active management and restoration activities reflect significant issues about ecological integrity that parks face; whether selected active management and restoration projects are being managed according to generally accepted active management and restoration practices; and whether these projects and related results are being used for maintaining or restoring ecological integrity, as well as enhancing public education and visitor experiences.

Scope and approach

Our examination of progress made on selected commitments contained in *First Priority*, and of the state of protected heritage areas reporting was at the level of Parks Canada as a whole. We examined monitoring, research, active management, and restoration activities by focussing on 12 parks (Gros Morne National Park, Prince Edward Island National Park, Forillon National Park, Point Pelee National Park, Pukaskwa National Park, Riding Mountain National Park, Grasslands National Park, Waterton Lakes National Park, Jasper National Park, Pacific Rim National Park Reserve, Kluane National Park Reserve, and Quttinirpaaq National Park).

In carrying out our audit, we interviewed park officials and other selected stakeholders and reviewed park files, reports, and other documentation. We also undertook field visits in six of the parks we examined. We examined selected monitoring and restoration projects at the park level to determine how they were being managed. These projects were selected to reflect a variety of topics related to biodiversity, ecosystem functions, and stressors.

Criteria

Our audit criteria, by audit objective, are presented below.

To determine the extent to which Parks Canada can demonstrate progress on selected commitments in Part 1 of *First Priority*, we expected that Parks Canada was acting on commitments it made and that Parks Canada had satisfactory procedures in place to monitor progress on its commitments and to report on the status of its commitments.

To determine the extent to which reporting on monitoring and research (monitoring) and active management and restoration (restoration) in the reports on the state of protected heritage areas and the report on the state of the parks is fair, we expected that the information contained in Agency reports would do the following:

- present, in context, tangible and important accomplishments against objectives and costs;
- tell a clear performance story, describing expectations and benchmarks against which comparisons are made;
- demonstrate in a reasonable fashion how the Agency's actions have made a difference; and
- present a representative yet clear picture of the full range of activities and results (both positive and negative), which would not mislead the reader.

Our criteria regarding our objectives related to monitoring and research (monitoring) and active management and restoration (restoration) were similar. In particular, to determine if monitoring and restoration actions addressed significant issues in ecological integrity that parks faced, and whether activities and results associated with these measures were being used for park management purposes, we expected to find the following:

- at the park level, there would be plans for monitoring and restoration activities;
- parks management would have reviewed monitoring and restoration plans and would have subjected them to independent review (for example, by internal management committees, steering committees, scientific advisory committees);
- planned and actual monitoring and restoration activities would be related to the ecological integrity priorities and needs within parks;
- at the park level, gaps in monitoring and restoration would have been identified and that the impacts/consequences of these gaps would be considered when developing monitoring and restoration plans; and
- monitoring and restoration were being used by park management for maintaining or restoring ecological integrity and for enhancing public education and visitor experiences.

With respect to how monitoring projects were being managed, we expected that the following conditions would be met:

- the expected results of the projects would be clearly stated;
- the monitoring activities would follow a project plan;
- the methodology and data management protocols would be documented;
- data collection would be consistent in terms of spatial and temporal scales;
- monitoring information would be analyzed and would be accessible; and
- the status and results of monitoring projects would be tracked and reported to park management.

With respect to how selected restoration activities were being managed, we expected the following:

- the expected results of restoration projects would be clearly stated;
- restoration projects would follow a project plan; and

- the status and results of restoration projects would be tracked, measured, evaluated, and reported to park management.

Some quantitative information in this chapter is based on data drawn from sources indicated in the text. We are satisfied with the reasonableness of the data, given their use in our chapter. However, the data have not been audited, unless otherwise indicated in the chapter.

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Appendix List of recommendations

The following is a list of recommendations found in Chapter 2. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
Responding to the Panel on Ecological Integrity	
2.21 In addition to the update it expects to release later this year, Parks Canada should periodically report to the public on the progress it is making on any outstanding commitments from its 2000 action plan, as contained in Part 1 of *First Priority*. For these commitments, Parks Canada should clearly indicate what it expects to achieve in terms of results, who will be responsible for contributing to these results, and what the related timelines are. **(2.18-2.20)**	Agreed. Parks Canada will release an update to the *First Priority* report in the fall of 2005, which will provide a status report on progress concerning the Parks Canada EI Action Plan, as well as the 127 recommendations of the Panel on the Ecological Integrity of Canada's National Parks. Future reports on the Parks Canada EI Action Plan will occur through the Parks Canada Agency annual report, the biennial state of protected heritage areas reports, and the Minister's Round Table, as well as periodic public interest reports (for example, *Action on the Ground—Ecological Integrity in Canada's National Parks, Parks Canada 2005*).
Reporting to Parliament on the state of protected areas	
2.25 Based on the strengths and weaknesses of prior reports, Parks Canada should improve future state of protected heritage areas reports in the following ways: • Provide more continuity between reports by using baselines and benchmarks more consistently. • Better explain its long-term reporting strategy. • Include more information on results and outcomes being achieved, especially with respect to case studies.	Agreed. Parks Canada will improve future state of protected heritage areas (SOPHA) reports using the results of this audit and a recently completed internal review. With new funding received in budgets 2003 and 2005, Parks Canada is implementing a system-wide ecological integrity monitoring and reporting program focussed on six to eight key indicators that will be monitored consistently in each national park over time. This program will be fully functional by March 2009. This will improve the ability of Parks Canada to report on a consistent basis, building on site-specific state of parks reports and the experience of previous reports. Based on a review of internal and external stakeholders' information needs and communications priorities, Parks Canada will focus on producing significantly shorter, more concise, and consistent SOPHA reports in the future with an emphasis on high-level scientifically credible indicators of the state of heritage

Recommendation	Department's response
• Provide more financial information. • Include more concrete examples of the contributions of other parties to maintaining and restoring ecological integrity. (2.24)	resources and results of efforts to maintain or improve those resources. Case studies will not be used to the same extent as previous SOPHA reports, and contributions of partners will be highlighted in other documents including the annual report and specialized publications, such as the recent *Action on the Ground—Ecological Integrity in Canada's National Parks* (Parks Canada, 2005). While some summary financial information may appear in the state of protected heritage areas report, the Agency will continue to report on planned and actual expenditures through the corporate plan and annual report, as required by the *Parks Canada Agency Act*.
Monitoring and restoration	
2.39 Given that new standards are in place for park management plans, Parks Canada needs to ensure that updating these plans is a priority. To ensure that potential gaps in active management and restoration are understood, individual parks should assess their active management and restoration needs, establish clear objectives and key actions based on these needs, and identify gaps. This information, along with similar information for monitoring, should be included in future park management plans. (2.33-2.38)	Agreed. The Parks Canada Corporate Plan 2005-06–2009-10 confirms that updating park management plans is an Agency priority and identifies March 2010 as the target to have national park management plans up-to-date and consistent with the latest management guidelines. Parks Canada is currently revising its Guide to Management Planning to reflect new legislative and policy directions. The revised guidelines will include greater emphasis on managing for results and will require that national park management plans clearly define objectives and key actions for both monitoring and restoration.
2.54 Given the importance of monitoring, restoration, and enhancing public education and visitor experience; and in order to maximize its ability to successfully implement its initiatives in a consistent and sustainable manner,Parks Canada should do the following: • Ensure that the measures it is taking to improve monitoring and	Agreed. As stated in the Parks Canada Corporate Plan 2005-06–2009-10, the Agency is committed to improving its ecological integrity monitoring and reporting, restoration, and public education programs, as well as the provision of opportunities for quality visitor experiences. With new funding received in budgets 2003 and 2005, Parks Canada is implementing a system-wide ecological integrity monitoring and reporting program focussed on six to eight key indicators that will be monitored consistently in each national park over time. This program will be fully functional by March 2009. Improved data management will be a key component of this program initiative. Parks Canada is developing

Recommendation	Department's response
restoration are completed and consistently implemented at the park level. This includes improvements to monitoring programs, and implementation of its data management system, and guidelines for monitoring and restoration. • Ensure individual parks establish clear and concrete objectives and key actions for integrating public education and visitor experience with monitoring and restoration activities. • Take necessary, corrective actions on a timely basis to ensure that the measures it is implementing are successful and consistently applied across individual parks. • Publicly report on an annual basis, both at the national and individual park level, on the measures being taken to improve monitoring and restoration and on any issues that may affect the successful implementation and sustainability of its initiatives. Reporting at the individual park level should be part of an annual park management plan implementation report. **(2.50-2.53)**	an Intranet-based information management system that will document all monitoring protocols, standards and baselines, and will archive monitoring data under agreed metadata standards. Parks Canada has also hired seven bioregional monitoring specialists to support the implementation of the monitoring and reporting program in each part of the country. This will greatly improve the ability of Parks Canada to report on a consistent basis. Parks Canada recognizes the ecological restoration of ecosystem structure and function is an ongoing challenge. The full need for restoration will only be known when EI monitoring programs are completed in 2009. The restoration need will also be a moving target as conditions change. Parks may be impacted by regional land-use changes or climate change. Guidelines for restoration activities are under development and will be finalized in 2006. The revised guidelines for management planning will include greater emphasis on managing for results, will require that national park management plans clearly define objectives and key actions for both monitoring and restoration, and will promote the integration of monitoring and restoration activities with public education and visitor experience objectives and actions. Recognizing that increased understanding through public education is fundamental to maintaining and restoring ecological integrity, Parks Canada will develop, over the next few years, learning strategies for each national park that will outline objectives for enhancing public education, including the integration of monitoring and restoration activities. As required by legislation, Parks Canada will continue to report publicly through the Parks Canada Agency Corporate Plan, the annual report, as well as the biennial state of parks reports, and the Minister's Round Table. As required by the revised guide to management planning, field unit superintendents are accountable for ensuring that park management plan implementation reports are completed on an annual basis, as well as state of parks reports every five years, as a prelude to revising the park management plan.

Report of the Commissioner of the Environment and Sustainable Development to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the

Commissioner of the Environment and Sustainable Development

to the House of Commons

Chapter 3

Canadian Biodiversity Strategy: A Follow-Up Audit

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

3

Canadian Biodiversity Strategy

A Follow-Up Audit

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

- What is biodiversity? 3
- Why is biodiversity important to Canada? 3
- The international biodiversity imperative and Canada's response 3
- Responsibility for biodiversity in Canada is shared 3
- What we said in previous reports 5
- Focus of the audit 6

Observations and Recommendation 6

Update on observations in our 2000 Report 6

- Biodiversity modules were not all completed 6
- No coherent plan to implement the Canadian Biodiversity Strategy 6
- Governance problems overshadow improved co-ordination 8

Progress on the *Working Together* priorities 9

- Biodiversity science and information commitments have not been met 9
- Monitoring and reporting commitments are behind schedule 11
- Invasive alien species: Time to implement the action plans 13
- Stewardship commitment was met 14

Time to take stock of biodiversity in Canada 15

Conclusion 17

About the Audit 19

Appendix

- List of recommendations 21

Canadian Biodiversity Strategy
A Follow-Up Audit

Main Points

What we examined

The Canadian Biodiversity Strategy was intended to be a framework for action to, among other things, conserve and sustainably use biological diversity or "biodiversity." The strategy was endorsed in 1996 by federal, provincial, and territorial ministers. This follow-up audit is our third audit since 1998 of the federal government's implementation of the strategy.

Why it's important

Biological diversity—or biodiversity—refers to the variety of life in all its forms; it includes ecosystem diversity, species diversity, and genetic diversity. Biodiversity is essential to the health of the planet and the well-being of its inhabitants. It allows for and promotes healthy vegetation (including crops), clean air and clean water, and directly benefits Canadians' health and economic prosperity. Biodiversity faces a number of threats, including loss of habitat, invasive species that threaten native species, and overexploitation of plants and animals. Canada has made domestic and international commitments to conserve and sustainably use this country's biological diversity, using the Canadian Biodiversity Strategy as the basis for action.

What we found

- Overall, the federal government's progress in implementing key aspects of the Canadian Biodiversity Strategy is unsatisfactory. Nearly 10 years after endorsement of the strategy, momentum has stalled on several fronts. Problems identified in our previous two audits of the strategy persist, and several commitments to deliver on biodiversity priority areas have not been met.

- The federal government still lacks a coherent plan for implementing the strategy, and while it has made implementation efforts, the government does not know how well these are meeting the strategy's goals.

- Commitments to improve Canada's capacity to understand its biodiversity and manage biodiversity information have not been fulfilled, despite numerous calls to improve these areas.

- There is no consolidated, comprehensive report on the state of biodiversity in Canada. While the government is working toward such reporting and reporting is taking place in various sectors, this is the third audit in which we have pointed out that there is no overall picture of the state of biodiversity in Canada or how it is changing over time. This lack of information limits the federal government's ability to help conserve biodiversity, use it sustainably, and reduce its loss.

Environment Canada has responded. Environment Canada has accepted our recommendation and indicated the actions it intends to take to address the recommendation. Its detailed response follows the recommendation included in the chapter.

Introduction

What is biodiversity?

3.1 Biological diversity, or biodiversity, is the variety among living things. It includes diversity within species (such as the genetic diversity that makes each human unique), diversity between species (polar bears and black bears), and diversity of ecosystems (prairie grasslands and Arctic tundra). In short, biodiversity is the complex web of life.

3.2 Many factors threaten biodiversity—in Canada and globally—including loss of habitat, invasive species that threaten native species, overexploitation of plants and animals, and climate change.

Why is biodiversity important to Canada?

3.3 Biodiversity is important for the intrinsic value of life and for the essential goods and services provided by a biologically diverse natural environment. These goods and services include purification of air and water, pest control, flood control, ingredients for medicines, and pollination of crops (see Examples of goods and services provided by biodiversity, page 5).

The international biodiversity imperative and Canada's response

3.4 When Canada signed and ratified the Convention on Biological Diversity in 1992, Canada committed to conserve biodiversity and to use its biological resources sustainably. Canada was the first major industrialized country to ratify the convention. In June 2005, 188 countries were parties to the convention.

3.5 Exhibit 3.1 shows a timeline with key biodiversity events internationally and in Canada.

Canada's boreal forest provides vital services, such as purifying water and air.

Source: Natural Resources Canada

Responsibility for biodiversity in Canada is shared

3.6 Responsibility for biodiversity in Canada is shared among federal departments and agencies, including Environment Canada, Fisheries and Oceans Canada, Agriculture and Agri-Food Canada, Natural Resources Canada, and the Parks Canada Agency; and between federal, provincial, and territorial governments. Significant roles are also played by citizens, industry, and non-governmental organizations.

3.7 Federal co-ordination of the Canadian Biodiversity Strategy and of Canada's response to the convention is through the Biodiversity Convention Office (BCO), which is housed within Environment

Canada. The mandate of the office is to co-ordinate and facilitate policy and international reports on Canada's implementation of the convention. Currently, the BCO has three full-time staff acting as a national focal point and providing secretariat support for the domestic implementation of the strategy. The BCO is primarily occupied with preparing Canadian positions for international meetings.

3.8 Implementation of the strategy is discussed at joint meetings of federal, provincial, and territorial ministers who have responsibility for forests, wildlife, endangered species, fisheries, and aquaculture. Meetings of deputy ministers and senior officials take place in advance of the ministerial meetings. Working-level officials form a federal-provincial-territorial Biodiversity Working Group that develops and co-ordinates plans to implement the strategy. In 2001, the Working Group released a report entitled *Working Together*, which recommended priority actions to implement the strategy.

Exhibit 3.1 **Dates of key biodiversity events**

1992

Canada signed and ratified the Convention on Biological Diversity.

One requirement under the convention is that parties prepare national biodiversity strategies. Federal, provincial, and territorial governments endorsed the Canadian Biodiversity Strategy in 1996. The strategy sets five goals:

1. Conserve biodiversity and use biological resources in a sustainable manner.
2. Improve understanding of ecosystems and increase resource management capability.
3. Promote an understanding of the need to conserve biodiversity, and use biological resources in a sustainable manner.
4. Maintain or develop incentives and legislation that support the conservation of biodiversity and the sustainable use of biological resources.
5. Work with other countries to conserve biodiversity, use biological resources in a sustainable manner, and share equitably the benefits that arise from genetic resources.

1996

1997

When the federal government endorsed the strategy in 1996, it set a deadline of April 1997 to create "modules" relating to eight biodiversity topics: agriculture, forestry, wildlife, protected areas, education, aquatic systems, ecological management, and international co-operation.

Some modules are meant to report on ongoing activities, and others are to be action plans. The status of the modules in 2005 is summarized in Exhibit 3.2.

2001

Federal, provincial, and territorial governments released a report entitled *Working Together*, which recommended joint actions to implement the Canadian Biodiversity Strategy. All jurisdictions accepted these recommendations and committed to deadlines for activities in four priority areas:

1. Build a foundation of biodiversity science and information.
2. Monitor and report on biodiversity status and trends.
3. Address the threat of invasive alien species.
4. Engage Canadians in biodiversity stewardship.

2002

Canada, along with other parties to the convention, commited to "achieve by 2010 a significant reduction of the current rate of biodiversity loss."

What we said in previous reports

3.9 We examined implementation of the Canadian Biodiversity Strategy in our 1998 Report, Chapter 4, Canada's Biodiversity Clock Is Ticking, and again in our 2000 follow-up, Chapter 9, Follow-up of Previous Audits: More Action Needed. In 1998, our assessment revealed that federal implementation of the strategy was still in its early stages, and as a result, we scaled back the scope of the audit. In the 2000 audit, we observed that the federal government had made satisfactory progress in certain areas; however, we expressed the following concerns:

- Deadlines for completing the reports—or "modules"—on implementation of the strategy were missed. The modules that were completed lacked time frames, resources to be allocated, expected results, and performance indicators.
- There was no federal plan for implementing the strategy.
- Co-ordination among federal, provincial, and territorial governments was lacking.
- Biodiversity science capacity needed to be enhanced.
- There was no overall report on the state of biodiversity in Canada.

Examples of goods and services provided by biodiversity

Biodiversity exists at three levels: genetic, species, and ecosystem. Each of these provides vital goods and services upon which human health and well-being depend.

Genetic diversity: Insurance against change; opportunities for the future

- Diverse genetic traits may enable species to adapt to changing conditions. Food crops and livestock in particular may be bred to meet changes in environmental conditions, market demands, and nutritional needs; and to resist disease. For example, Canada's native plants endure both cold winters and hot summers. The genetic material in these plants may allow crops to adapt to wider temperature ranges.
- In 2005, a large-scale international assessment of biodiversity reported that genetic diversity had declined globally, particularly among domesticated species. There has been a shift toward fewer varieties of crops and livestock in part due to the adoption of modern farming practices.

Species diversity: Pollinators for food crops

- Many creatures help to transfer pollen, which fertilizes plants and allows them to reproduce. Examples of pollinator species include insects, such as bees, butterflies, beetles, and other animals, such as birds and bats.
- Numerous sources estimate that at least one-third of agricultural crops depend on pollinators.
- Bees are among the principal insect pollinators. A study by Agriculture and Agri-Food Canada in 2001 (based on 1998 figures) estimated that the value of honey bee pollination to Canadian agriculture is about $782 million.
- Declines in pollinator populations have been recognized internationally and attributed to the use of pesticides, loss and fragmentation of habitat, and the impact of parasites and invasive species.

Ecosystem diversity: Canada's boreal forest is a resource of national and global importance

- The boreal forest is a vast ecosystem that covers large parts of Canada, Russia, Scandinavia, and other northern regions. Canada's boreal forest is a wide "green belt" stretching from Newfoundland to the Yukon and comprises approximately one third of the earth's boreal forest.
- The global boreal forest fills many roles, including storing freshwater and carbon.
- The boreal forest is closely linked to Canada's culture as the home of iconic species, such as caribou, beaver, and loons. The boreal region also provides numerous economic and recreational opportunities.

Focus of the audit

3.10 The objective of this follow-up audit was to determine the extent to which the federal government has made progress implementing selected aspects of the Canadian Biodiversity Strategy. We focussed on actions taken by the federal government on key observations in our 2000 Report, and on the four priorities outlined in *Working Together*. Specifically, the areas we examined in this audit were

- progress on observations from the 2000 audit: the biodiversity modules, the federal implementation plan, federal-provincial-territorial co-ordination, science capacity, and the federal government's ability to report on the state of biodiversity in Canada; and
- progress on the four *Working Together* priorities: science and information, monitoring and reporting, invasive alien species, and stewardship.

More information on our audit objectives, scope, approach, and criteria is provided in **About the Audit**.

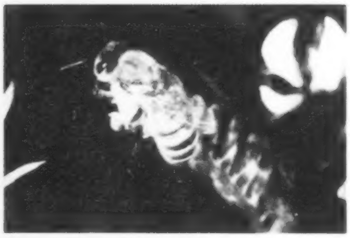
Observations and Recommendation

Update on observations in our 2000 Report

Biodiversity modules were not all completed

3.11 The Canadian Biodiversity Strategy called for reports on policies, programs, strategies, and actions that were under way or would be undertaken to implement the strategy. The federal government began these reports, or "modules," in eight thematic areas. In 2000, we found that only five of the eight planned modules had been completed.

3.12 After 2000, no further modules were completed. Of the completed modules, most are currently not in use. However, some biodiversity issues discussed in the modules have been incorporated into federal biodiversity work in specific sectors (Exhibit 3.2). There are also cross-sectoral initiatives that address biodiversity issues. One example is Canada's strategy to protect species at risk.



Pollination services are of great importance for food crops and are provided by a number of species; bees are among the most important pollinators.

Source: Maryann Frazier, Mid-Atlantic Apiculture

No coherent plan to implement the Canadian Biodiversity Strategy

3.13 Environment Canada stated during our 1998 and 2000 audits that the eight planned modules would be summarized in a federal plan to implement the Canadian Biodiversity Strategy. In 1998, we noted that co-ordination of the strategy would be facilitated by an overall federal implementation plan. In 2000, we found that there was still no implementation plan, even though such a plan was a fundamental component of Canada's effort to meet its international and domestic biodiversity commitments.

3.14 Since 2000, the need for a plan to implement the strategy has been highlighted. For example, the National Round Table on the Environment and the Economy wrote in 2003 that current approaches, such as the strategy, are not enough, and that governments need to set conservation goals and targets and measure their progress in achieving them. A 2003 study prepared for Environment Canada found that the federal government needs "an overall federal game plan for biodiversity conservation."

3.15 There is still no federal implementation plan. Given the major role of provinces and territories in conservation, Environment Canada has become convinced that a national approach is more effective than a federal implementation plan. This, combined with concerns about the strategy as a means of engaging ministers and setting direction, has led to discussions among federal, provincial, and territorial officials to

Exhibit 3.2 **Status of the federal biodiversity modules**

Module topic	Status
Forests	Complete—current activities are guided by the National Forest Strategy.
Agriculture	Complete—current activities are guided by the Agricultural Policy Framework.
Protected areas	Complete—current activities are guided by the international Protected Areas Programme of Work under the convention.
Education	Complete
Wildlife	Complete—current activities are incorporated into programs aimed at wildlife, such as species at risk and migratory birds.
International co-operation	Incomplete
Aquatic diversity	Incomplete—some themes from the module are present in Canada's Oceans Strategy and issue-specific initiatives, such as *A Policy Framework for Conservation of Wild Pacific Salmon*.
Ecological management	Incomplete—formed the basis for a discussion paper on integrated land-use management and a practitioner's guide to ecological management; however, both remain in draft form.

create a national biodiversity outcomes framework. Among other things, the outcomes framework is intended to

- be a basis for jointly developing policy and setting priorities,
- integrate biodiversity work by different sectors and levels of government,
- be used for assessing and reporting on progress, and
- create coherence among jurisdictional, national, and international objectives.

3.16 The outcomes for the framework have not yet been decided. It is unclear when this outcomes framework will be in place.

Governance problems overshadow improved co-ordination

3.17 In 2000, we found a lack of federal co-ordination with the provincial and territorial governments. This was illustrated by

- poor attendance at the federal-provincial-territorial Biodiversity Working Group;
- limited attention paid by ministerial committees to biodiversity due to many competing agenda items; and
- the lack of a ministerial home for biodiversity.

3.18 The federal-provincial-territorial Biodiversity Working Group is more active than we found in our 2000 audit. In 2001, it released *Working Together*, which was intended to re-commit all levels of government to implementation of the strategy. It is also leading development of the biodiversity outcomes framework.

3.19 Since 2001, biodiversity has been discussed at the ministerial level at joint meetings of federal, provincial, and territorial ministers responsible for forests, wildlife, endangered species, fisheries, and aquaculture. Biodiversity is receiving greater attention than we found in 2000; however, a 2004 report prepared for the three levels of government and based on interviews with senior federal, provincial, and territorial officials found that the majority agreed that there are problems with biodiversity governance. The report identified two main factors contributing to the problems:

- **Lack of engagement.** The report found that ministers do not relate biodiversity items on the agenda at their joint meetings to priorities of their governments or their individual portfolios.
- **Lack of accountability.** Accountability for meeting biodiversity commitments requires measurable outcomes, assigned

responsibility for achieving outcomes, clear leadership and mandates, and consistent reporting mechanisms. The report found these to be lacking.

3.20 The report noted that lack of both engagement and accountability contributed to "very slow" progress of the four *Working Together* priorities. Recommendations from the report led to the initiative to create the national biodiversity outcomes framework, which is intended to address these governance problems.

3.21 There is still no formal ministerial home responsible for overseeing implementation of the strategy. Environment Canada, which has been acting as the lead federal department on the national biodiversity outcomes framework, believes that a formal ministerial forum that allows for more integrated policy discussions is necessary. The framework for the national biodiversity outcomes may lead to the development of this structure.

Progress on the *Working Together* priorities

Biodiversity science and information commitments have not been met

3.22 Our previous audits noted that the level of resources used to support science, which is pivotal to understanding biodiversity, was inadequate. We also noted gaps in the federal government's capacity for biodiversity research and in the accessibility of biodiversity information.

3.23 The Working Group acknowledged in *Working Together* that "Canada is in urgent need of strong action to re-invigorate its biodiversity science capacity to: support biodiversity conservation and sustainable resource use; ensure its economic competitiveness; and meet its obligations under the Canadian Biodiversity Strategy and the Convention on Biological Diversity." In addition, numerous reports since 2001 have called for improvements in the federal government's biodiversity science and information management.

3.24 **Commitment to build a foundation of biodiversity science and information.** In response to *Working Together*, the federal, provincial, and territorial governments committed to develop

- a strategy to enhance the collection, management, sharing, analysis, and accessibility of biological information by the fall of 2002; and
- a science and research agenda to more effectively understand and address the underlying causes of biodiversity loss, and the conservation and sustainable use of biological resources by the fall of 2003.

3.25 **Strategy to enhance biological information not completed.** The commitment to develop a strategy to enhance biological information by the fall of 2002 was not met. There has been significant federal activity that could have led to a strategy; however, none of it has addressed the *Working Together* commitment. For example:

- The federal government, along with other levels of government, academics, industry, aboriginal groups, and other stakeholders, undertook significant work to develop the Biodiversity Knowledge and Innovation Network. The network proposed to enhance Canada's capacity to study biodiversity and manage biological information, both of which we note are key to the science and information priority in *Working Together*. However, the network was not completed.
- In 2001, the federal Environment Minister received the report of a task force that recommended a Canadian Information System for the Environment (CISE), which aimed to create a network of environmental—including biodiversity—information. The CISE is still being implemented, and its biodiversity component is not designed to fulfill the commitment to develop a strategy for biological information.

3.26 Despite these false starts, there has been some progress in making biodiversity information available on-line. The Federal Biodiversity Information Partnership (FBIP) has taken on some of the objectives of the Biodiversity Knowledge and Innovation Network related to biodiversity information management.

3.27 FBIP membership includes several federal departments and agencies. Its main output has been an Internet site that provides access to data on nearly two million specimens housed in collections across Canada. This site, the Canadian Biodiversity Information Facility (www.cbif.gc.ca), provides access to less than five percent of the specimen-based biodiversity collections in Canada. In 2004, the FBIP operated on $527,000 in cash and in-kind contributions from federal departments and agencies. By comparison, the Biodiversity Knowledge and Innovation Network proposed a budget of $2.4 million in its first year and nearly $4 million in its second year.

3.28 Many federal collections are not easily accessible to biodiversity researchers because of varying formats or because information has not been entered into electronic databases due to lack of resources.

3.29 **Science and research agenda not finalized.** As a result of the commitment to develop a science and research agenda by the fall of 2003, the joint meeting of ministers approved a draft agenda. It includes 36 "strategic directions" aimed at improving governance, enhancing the capacity of the biodiversity science community, addressing research needs, and establishing a biodiversity information network.

3.30 The intention for 2004 was to prioritize the issues discussed in the draft agenda and to take action on the strategic directions described in it. Environment Canada indicated this was not done; the biodiversity science agenda remains in draft and, as there was no progress to report, biodiversity science was not discussed by the joint ministers when they met in 2004.

3.31 During the audit, federal departments provided examples of their ongoing biodiversity science activity. The commitments to develop a biological information strategy and a science and research agenda—had they been met—could have supported this work.

Monitoring and reporting commitments are behind schedule

3.32 In 1998 and 2000, we found that there was no report on the state of biodiversity in Canada. *Working Together* included a recommendation to develop a business plan by the fall of 2002 aimed at enhancing the monitoring and integration of biodiversity data across ecosystems, and facilitating regular reporting on biodiversity status and trends in Canada, commencing in 2005.

3.33 However, federal work on this commitment did not take place as planned. We were told by Environment Canada that co-ordination among jurisdictions was a significant obstacle to developing the business plan called for in *Working Together*. Instead, in 2002, the joint ministers endorsed the development of two elements of a national biodiversity reporting system: the Canadian Biodiversity Index and a Web portal to biodiversity status and trends.

3.34 The Canadian Biodiversity Index, led in part by Environment Canada, is intended to provide a picture of the state of biodiversity in Canada by communicating biodiversity assessments across Canada in a meaningful, concise, and easy-to-understand way. In 2003, the intention was to implement the Index in March 2005. However, the Index is still in development and is not projected to be ready to report biodiversity information before 2006.

3.35 The Canadian Information System for the Environment (www.cise-scie.ca/biodiversity) has established a Web portal that provides links to reports of biodiversity status and trends information.

Also in development is a Web page that compiles individual indicators from these reports.

3.36 While the Canadian Biodiversity Index and Web portal go some way toward enhancing reporting, they do not enhance the monitoring of biodiversity, which was also part of the *Working Together* priority. This is troubling because the Canadian Biodiversity Index will rely in part on consistent and sustained federal monitoring efforts.

3.37 There are several monitoring initiatives taking place within federal departments. Environment Canada also co-ordinates a national network of organizations involved in monitoring through its Ecological Monitoring and Assessment Network. Efforts are under way to consolidate biodiversity data collected by groups that form the network and make it available to decision makers in a useful format.

Did you know?

Environment Canada notes:

- The forest and agriculture sectors lose millions of dollars each year due to alien pests and disease; they spend millions more on pesticides, fungicides, and herbicides to control the invaders.
- Aquatic "invasives" are also a considerable problem; efforts to repair damage caused by the zebra mussel already total tens of millions of dollars.

A 2002 study by the Canadian Wildlife Service found that approximately 24 percent of species at risk in Canada may be threatened by invasive alien species.

A study of 16 invasive alien species conservatively estimated that annual costs of damage and control in Canada range from $13.3 billion to over $34 billion.

3.38 Still no comprehensive biodiversity reporting for Canada. Reporting on the status and trends of biodiversity is essential to determine the effectiveness of the federal government's efforts to conserve and sustainably use biodiversity, and to detect significant changes that require intervention. A state-of-biodiversity report would also increase Canadians' awareness of biodiversity issues.

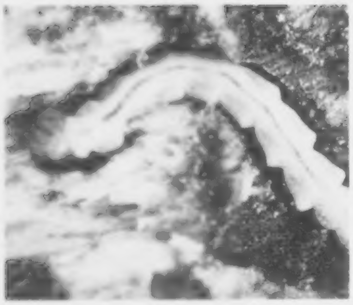
3.39 In addition to the *Working Together* commitment to facilitate regular reporting on biodiversity status and trends, the Canadian Biodiversity Strategy committed federal, provincial, and territorial governments to report periodically on the status of Canada's biodiversity. However, similar to what we found in our 1998 and 2000 audits, there is still no consolidated, comprehensive report on the state of biodiversity in Canada. There is still no answer to the basic question, "What is the state of biodiversity in Canada?"

3.40 A look at two major biodiversity reports reveals some of the challenges in status and trends reporting:

- *Environmental Signals.* This Environment Canada publication reports on several environmental issues, including biodiversity. The first *Environmental Signals* was released in 2003, and the next edition is due in 2005. Environment Canada acknowledges that the indicators used in 2003 did not adequately communicate the threats to our biodiversity or how well Canada is protecting its biodiversity. It plans to report on a more complete set of indicators for the 2005 edition.
- *Wild Species.* This report is jointly prepared by federal, provincial, and territorial governments at five-year intervals. The

2000 edition reported on approximately 1,600 species or two percent of the over 70,000 identified species in Canada. Coverage of a further 5,000 species is planned for the 2005 edition. *Wild Species* focusses on species diversity—not biodiversity at the ecosystem or genetic levels.

Larva of the emerald ash borer tunnels into a tree (top). This invasive species damages and eventually kills the host tree (bottom).



Source: David Cappaert; www.forestryimages.org

Source: Canadian Food Inspection Agency

3.41 The Canadian Biodiversity Index should also contribute to regular reporting on biodiversity status and trend information.

3.42 Some biodiversity monitoring and reporting takes place within sectors. At the federal level, Agriculture and Agri-Food Canada, Natural Resources Canada's Canadian Forest Service, Parks Canada Agency, Fisheries and Oceans Canada, and the Canadian Wildlife Service all monitor and report on various aspects of biodiversity. Monitoring takes place at provincial, municipal, and community levels. The challenge is to co-ordinate efforts so that all significant aspects of biodiversity are effectively monitored and reported in a way that is scientifically rigorous and is communicated in a meaningful way.

3.43 In addition to the lack of comprehensive biodiversity reporting, there has not been a report on the federal government's progress toward achieving the five goals of the Canadian Biodiversity Strategy. We note that in 2002, Natural Resources Canada's Canadian Forest Service did assess the forest sector's progress in meeting the goals of the strategy.

Invasive alien species: Time to implement the action plans

3.44 *Working Together* contained a recommendation to develop a draft plan to address the growing threat of invasive alien species in Canada by the fall of 2002.

3.45 An invasive alien species is a species that is non-native to a given ecosystem and that threatens the environment, economy, or society, including human health. Human actions are the primary means of alien species introductions.

3.46 The draft plan to address the threat of invasive alien species was delivered two years late, in 2004, in *An Invasive Alien Species Strategy for Canada*. Environment Canada, which has assumed a co-ordinating role on this issue, indicated that one of the lessons learned in developing the Invasive Alien Species Strategy was that sufficient time must be devoted to consultations within and among jurisdictions on multi-sector issues such as alien species.

3.47 The Invasive Alien Species Strategy contains no specific steps to achieve its key objectives: prevention, detection, rapid response, and management of invasive alien species; however, a series of action plans, which are to include concrete steps for implementation, are in development. Federal, provincial, and territorial officials expect to present the action plans, covering invasive alien terrestrial plants and plant pests, aquatic invasive species, and wildlife diseases, to the responsible ministers for approval in October 2005. The February 2005 federal budget announced $85 million over five years for implementation of the Invasive Alien Species Strategy.

Stewardship commitment was met

3.48 The federal, provincial, and territorial governments committed to develop, by the fall of 2003, a biodiversity stewardship strategy that

- supports and builds on existing commitments to the Canada-wide Stewardship Action Plan, previously endorsed by the wildlife ministers; and
- enhances efforts to increase participation in biodiversity stewardship by all sectors of society.

3.49 "Stewardship" refers to the many actions that individuals, communities, industries, and non-profit organizations undertake to help conserve natural ecosystems. A 2002 compendium of stewardship activities across Canada, based on information collected by Environment Canada, cited over 200 examples, ranging from a national code of conduct for the mining sector to local programs involving people in protecting their watersheds.

3.50 In response to their commitment to produce a stewardship strategy, federal, provincial, and territorial governments approved and released *Canada's Stewardship Agenda* in 2002. This document is a general statement of the importance of stewardship and provides guidance on enhancing participation in stewardship activities in Canada. The federal-provincial-territorial stewardship working group that produced the Agenda is now dormant; however, stewardship activity continues across the country.

Time to take stock of biodiversity in Canada

3.51 Canada has had the Canadian Biodiversity Strategy to address its commitments under the Convention on Biological Diversity since 1996. After nearly 10 years and two audits by our office, the federal government has had a reasonable opportunity to implement the strategy within areas of its jurisdiction.

3.52 Our current audit found that problems identified in previous audits persist and that several commitments in biodiversity priority areas have not been met (Exhibit 3.3). The areas we examined are key to effective implementation of the strategy. While the federal government has directed a lot of effort toward implementing the strategy in some areas, for example, species at risk and department-specific biodiversity work, the federal government does not know how well the five goals of the strategy are being met. We feel

Exhibit 3.3 **Summary of findings of this audit**

Audit topic	Findings
Biodiversity modules	The three modules that were not completed in 2000 remain unfinished. Some components from the modules have been incorporated into strategies that guide federal departments in their work on biodiversity issues.
Federal implementation plan	As in 2000, there is still no federal plan for implementing the strategy. A national (federal-provincial-territorial) biodiversity outcomes framework, which would take the place of a federal implementation plan, is being discussed, but this is at a very early stage.
Federal-provincial-territorial co-ordination	Federal-provincial-territorial co-ordination has improved since our 2000 audit. There is still no formal ministerial home for biodiversity. The proposed national biodiversity outcomes framework may lead to a national structure, such as a formal ministerial council, to oversee implementation of the strategy. Engagement and accountability have been identified as lacking in the current governance structure.
Biodiversity science and information	Our 2000 audit noted concerns about the lack of federal biodiversity science capacity. *Working Together* included a recommendation to prepare a strategy to better manage biodiversity information (by 2002) and prepare a biodiversity science agenda (by 2003); neither the strategy nor the agenda has been completed.
Monitoring and reporting	Similar to what we found in our 1998 and 2000 audits, there is still no consolidated, comprehensive report on the state of biodiversity in Canada. Nor is there a report on federal implementation of the strategy. This commitment has led to work on a Canadian Biodiversity Index and Internet access to biodiversity status and trends. The index is not expected to be operational before 2006. Work on this commitment has not enhanced federal monitoring of biodiversity.
Invasive species	The commitment to prepare a plan to address invasive alien species has largely been met with the approval of the Invasive Alien Species Strategy for Canada in 2004; however, action plans necessary to implement this national strategy are not expected until October 2005. The federal government announced $85 million over five years in funding for invasive species programs in the February 2005 budget.
Stewardship	The federal, provincial, and territorial governments met their commitment to prepare a biodiversity stewardship strategy by 2003. The federal-provincial-territorial working group responsible for stewardship is currently dormant; however, other stewardship activity continues across Canada.

that it is time for the federal government to take stock of the progress made in achieving the goals of the Canadian Biodiversity Strategy and assess how the strategy is being implemented.

3.53 **Recommendation.** Environment Canada should lead an assessment of the progress on the five goals of the Canadian Biodiversity Strategy. This assessment should conclude what has been achieved, what remains to be achieved, what are the lessons learned, and how further progress will be made. Any plan for achieving further progress on the strategy should include the following:

- Clearly defined outcomes
- Indicators for measuring progress toward the outcomes
- Timeframes
- Clear roles and responsibilities
- Resource requirements
- Mechanisms for assessing and reporting on results and making required adjustments in managing toward the outcomes

Departments could use their reports on plans and priorities, performance reports, and sustainable development strategies to set out and report on their contributions to advancing implementation of the Canadian Biodiversity Strategy.

Department's response. Agreed. The Canadian Biodiversity Strategy (CBS), adopted by all jurisdictions in 1996, continues to be widely supported by federal, provincial, and territorial governments as a guiding framework. Many provinces now have, or are developing, biodiversity strategies modeled on the CBS. From 1996–2000 the federal government produced a number of reports that set out federal implementation plans in key areas such as forestry, wildlife, agriculture, and protected areas. More recently, the federal approach has been to build biodiversity as an integral component into sector-based and cross-sectoral policy and planning frameworks such as the Oceans Action Plan, National Forest Strategy, the Agricultural Policy Framework, and the newly approved Invasive Alien Species Strategy. Significant steps have also been taken to address species at risk through new federal legislation and to conserve areas of ecological importance through considerable enhancement to protected area networks and through support for habitat stewardship.

Given that many biodiversity issues require a co-ordinated effort, Environment Canada has attached priority to developing a shared agenda with federal, provincial, and territorial partners, as well as seeking the engagement of the private sector, the conservation community, and aboriginal organizations. In 2000, federal, provincial, and territorial governments agreed to collaborate on a number of cross-cutting implementation priorities. *An Invasive Alien Species Strategy for Canada* and *Canada's Stewardship Agenda* are two products of that collaboration. More recently, in June 2005, federal, provincial, and territorial deputy ministers of wildlife, forestry, and fisheries and aquaculture, agreed to collaborate on the development of an outcomes-based implementation framework for the Canadian Biodiversity Strategy to enable more focussed implementation and evaluation of progress. The development of the framework will be a joint federal-provincial-territorial effort co-ordinated by Environment Canada. This work will be preceded by both a high-level review of progress, as well as a more technical review and consultation process to inform and provide a scientifically credible underpinning for biodiversity outcomes. The implementation framework will include measurable outcomes, timelines, indicators, and a mechanism for monitoring and reporting. The target date for completion of the framework is fall 2006. This framework will provide the basis for future reporting to Canadians on how successful Canada has been in conserving biodiversity and its associated economic and social benefits.

Conclusion

3.54 Unfortunately, the momentum of the early 1990s, following Canada's ratification of the Convention on Biological Diversity, has stalled on several fronts. The Canadian Biodiversity Strategy is now nearly 10 years old. This is our third audit of the federal implementation of the strategy. We found that problems identified in our previous audits persist and that several commitments to deliver on biodiversity priority areas have not been met.

3.55 Once again, we found no federal implementation plan. While there is a new approach in development, it is in its very early stages. This new approach is to develop a framework of national biodiversity outcomes derived from input from the federal, provincial, and territorial levels.

3.56 Commitments to improve Canada's capacity to understand its biodiversity and manage biodiversity information have not been thoroughly acted upon, and a biodiversity science agenda remains at the draft stage, despite numerous calls for improvement in Canada's biodiversity science and information capacity. There is also no comprehensive report on Canada's state of biodiversity. By not knowing the extent of our own biodiversity, or understanding its complexity or its status over time, the federal government is limited in its ability to track the state of biodiversity, help conserve it, use it sustainably, and meet commitments that Canada has made to reduce the rate of biodiversity loss. These are not narrow problems: biodiversity directly benefits Canadians' quality of life in terms of health and economic prosperity.

About the Audit

Objective

The objective of this follow-up audit was to determine the progress by the federal government in implementing selected aspects of the Canadian Biodiversity Strategy.

Scope and approach

The scope of this audit included progress made on the priorities outlined in the September 2001 report of the federal-provincial-territorial biodiversity working group, *Working Together*, as well as significant observations reported in our 1998 audit and still outstanding in our 2000 follow-up.

The audit focussed on the federal government's progress made on the four priorities identified for collaborative action in *Working Together*:

- building a foundation of biodiversity science and information,
- monitoring and reporting on biodiversity status and trends,
- addressing the threat of invasive alien species, and
- engaging Canadians in biodiversity stewardship.

We reviewed the federal government's response to the following significant observations from our 1998 and 2000 audits on implementation of the strategy:

- the status of the biodiversity modules;
- the status of the federal implementation plan; and
- federal-provincial-territorial co-ordination.

Observations from our 2000 audit concerning science and the federal government's ability to report on the state of biodiversity were followed up as part of our review of the related *Working Together* priorities.

We interviewed selected department officials, reviewed documentation relevant to assertions made during interviews, and interviewed selected external stakeholders.

Departments within the scope of the follow-up audit were Agriculture and Agri-Food Canada, Environment Canada, Fisheries and Oceans Canada, Natural Resources Canada, Transport Canada, and the Parks Canada Agency.

Some quantitative information in this chapter is based on data drawn from various federal and other sources indicated in the text. We are satisfied with the reasonableness of the data, given their use in our chapter. However, the data has not been audited, unless otherwise indicated in the chapter.

Criteria

We expected that the relevant federal departments and agencies responsible for implementing the Canadian Biodiversity Strategy would have developed a federal plan for implementation of the strategy. We also expected that federal departments and agencies responsible for implementing the Canadian

Biodiversity Strategy would have made satisfactory progress in addressing selected areas identified in our 2000 follow-up audit, as well as the priorities outlined in the 2001 report, *Working Together.*

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Appendix List of recommendations

The following is a list of recommendations found in Chapter 3. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
Time to take stock of biodiversity in Canada	
3.53 Environment Canada should lead an assessment of the progress on the five goals of the Canadian Biodiversity Strategy. This assessment should conclude what has been achieved, what remains to be achieved, what are the lessons learned, and how further progress will be made. Any plan for achieving further progress on the strategy should include the following: • Clearly defined outcomes • Indicators for measuring progress toward the outcomes • Timeframes • Clear roles and responsibilities • Resource requirements • Mechanisms for assessing and reporting on results and making required adjustments in managing toward the outcomes Departments could use their reports on plans and priorities, performance reports, and sustainable development strategies to set out and report on their contributions to advancing implementation of the Canadian Biodiversity Strategy. **(3.51-3.52)**	Agreed. The Canadian Biodiversity Strategy (CBS), adopted by all jurisdictions in 1996, continues to be widely supported by federal, provincial, and territorial governments as a guiding framework. Many provinces now have, or are developing, biodiversity strategies modeled on the CBS. From 1996–2000 the federal government produced a number of reports that set out federal implementation plans in key areas such as forestry, wildlife, agriculture, and protected areas. More recently, the federal approach has been to build biodiversity as an integral component into sector-based and cross-sectoral policy and planning frameworks such as the Oceans Action Plan, National Forest Strategy, the Agricultural Policy Framework, and the newly approved Invasive Alien Species Strategy. Significant steps have also been taken to address species at risk through new federal legislation and to conserve areas of ecological importance through considerable enhancement to protected area networks and through support for habitat stewardship. Given that many biodiversity issues require a co-ordinated effort, Environment Canada has attached priority to developing a shared agenda with federal, provincial, and territorial partners, as well as seeking the engagement of the private sector, the conservation community, and aboriginal organizations. In 2000, federal, provincial, and territorial governments agreed to collaborate on a number of cross-cutting implementation priorities. *An Invasive Alien Species Strategy for Canada* and *Canada's Stewardship Agenda* are two products of that collaboration. More recently, in June 2005, federal, provincial, and territorial deputy ministers of wildlife, forestry, and fisheries and aquaculture, agreed to collaborate on the development of an outcomes-based implementation framework for the Canadian Biodiversity Strategy to enable more focussed implementation and evaluation of progress. The development of the framework will be a joint federal-provincial-territorial effort co-ordinated by Environment

Recommendation	Department's response
	Canada. This work will be preceded by both a high-level review of progress, as well as a more technical review and consultation process to inform and provide a scientifically credible underpinning for biodiversity outcomes. The implementation framework will include measurable outcomes, timelines, indicators, and a mechanism for monitoring and reporting. The target date for completion of the framework is fall 2006. This framework will provide the basis for future reporting to Canadians on how successful Canada has been in conserving biodiversity and its associated economic and social benefits.

Report of the
Commissioner of the Environment and Sustainable Development to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the

Commissioner of the Environment and Sustainable Development

to the House of Commons

Chapter 4

Safety of Drinking Water: Federal Responsibilities

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

4

Safety of Drinking Water

Federal Responsibilities

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 5

Importance of safe drinking water 5
What constitutes safe drinking water? 5
Federal role in drinking water 5
Previous audits 7
Focus of the audit 7

Observations and Recommendations 8

Developing the Guidelines for Canadian Drinking Water Quality 8
The process for developing and reviewing guidelines is slow 10
A backlog of guidelines to be reviewed 13
Health Canada needs to continue its efforts to promote the Guidelines 14

Federal compliance with the Guidelines for Canadian Drinking Water Quality 15
Departmental procedures are inconsistent 15
Mix of bacteriological testing regimes at selected sites 16
Need for clear central guidance 17

Drinking water on passenger trains, aircraft, and cruise ships 19
No potable water inspections on aircraft 20
Gaps and inconsistencies in Health Canada's inspection approach 21

Status of the Federal Water Framework 23

Conclusion 25

About the Audit 27

Appendices

A. Progress in meeting sustainable development strategy commitments on drinking water 30
B. List of recommendations 31

Safety of Drinking Water
Federal Responsibilities

Main Points

What we examined

In Canada, the responsibility for ensuring the safety of drinking water is shared. The provincial and territorial governments have the main legislative responsibility for regulating the provision of safe drinking water to the public. The federal government has responsibilities for the safety of drinking water provided in First Nations communities; at military bases, national parks, and federal facilities; and on transportation conveyances, such as passenger trains, aircraft, and cruise ships travelling between provinces and internationally. A related area under federal leadership is the development of the Guidelines for Canadian Drinking Water Quality.

This audit examined the process the federal government uses to develop the Guidelines for Canadian Drinking Water Quality. It also looked at whether the government is complying with its legal obligation under the *Canada Labour Code* to make sure the drinking water provided to its employees meets these guidelines. To do this, we assessed whether six key federal departments and agencies comply with requirements to test drinking water for bacteria, as this testing is critical to protect human health. In addition, we examined Health Canada's inspection of drinking water on transportation conveyances.

Chapter 5 of this Report focusses on drinking water in First Nations communities.

Why it's important

Federal responsibilities for drinking water can have an impact on millions of people, including employees and travellers. Safe drinking water is free of microbiological contaminants and contains chemical contaminants at levels that do not harm human health. Contaminated drinking water can have potentially dire consequences for public health, as became tragically evident in Walkerton, Ontario in 2000.

The Guidelines for Canadian Drinking Water Quality are important for protecting the health of Canadians because they set out the contaminants that every water system (public, semi-public, and private) should strive to eliminate or reduce to acceptable levels in order to provide the cleanest, safest, and most reliable supply of drinking water possible. The Guidelines establish acceptable limits on chemical, microbiological, physical, and radiological characteristics of potable water.

What we found

- To develop the Guidelines for Canadian Drinking Water Quality, Health Canada leads a process with the provinces and territories that is based on risk, science, consultation, and transparency. However, this process is consistently slow. It often takes five years or more to develop new guidelines or to review existing ones. In the 2002 Speech from the Throne, the government made a commitment to accelerate its work with the provinces on improving the Guidelines. Of 83 existing chemical and physical guidelines, about 50 may need to be updated to reflect current science. At the present pace, however, it could take at least 10 years to deal with this backlog. Should emerging contaminants be added to this list, the backlog could worsen.
- Although the six federal departments and agencies we looked at are all subject to the *Canada Labour Code*, they have different policies, procedures, and requirements for safe drinking water that vary from comprehensive to incomplete or unclear. The result is a mix of bacteriological testing regimes at the 35 sites we selected for our audit. Such a range of compliance with the Guidelines for Canadian Drinking Water Quality points to the lack of central guidance in areas of federal responsibility. At sites where bacteriological testing detected contamination, the responsible departments have taken remedial action.
- Under the Potable Water Regulations for Common Carriers, Health Canada has the obligation to inspect water quality on passenger trains, aircraft, and cruise ships. We found that the Department inspects potable water on cruise ships and trains but not on aircraft, due to funding issues. Therefore, Health Canada cannot assure the millions of Canadian travellers that potable water on aircraft is safe.
- The 2004 Federal Water Framework is a first step toward a coherent federal approach to dealing with water matters, including those related to human health. However, even though in 2003 the government declared water to be a sustainable development priority, the current status of the Federal Water Framework is unclear and its future is uncertain. Senior officials who prepared the Framework have not met for over a year, and the next steps for its use have not been clearly established.

The departments have responded. All the departments included in this audit agreed to our recommendations. All departments except one provided satisfactory responses describing future actions needed to address our recommendations. However, the response provided by Environment Canada on the Federal Water Framework does not fully address the specifics of our recommendation.

Introduction

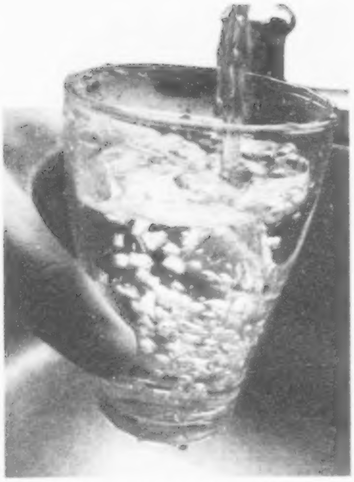
Importance of safe drinking water

4.1 A safe, clean, and reliable supply of drinking water is critical to public health. In many parts of the world, drinking water is still untreated and carries water-borne diseases causing human illnesses and death. In Canada and other industrialized countries, purification of municipal drinking water has largely eliminated water-borne diseases. However, there is no room for complacency, as was evidenced in Walkerton, Ontario in 2000, and in North Battleford, Saskatchewan in 2001. In these communities, people became ill after consuming water contaminated with dangerous micro-organisms. Some of the health consequences were long-term or even fatal. Boil-water advisories still occasionally affect municipalities across Canada.

Boil-water advisory—A recommendation that water destined for human consumption be submitted to a rolling boil of at least one minute to destroy harmful micro-organisms.

What constitutes safe drinking water?

4.2 Safe drinking water must be free of microbiological contaminants, and its chemical contaminants must be kept at levels that are not harmful to health. To achieve this, the various components of the water supply system—from protection at the source to treatment and distribution of drinking water to consumers—must be understood and managed as a whole. This is the basis of Canada's "multi-barrier approach," which recognizes the links between health and environmental issues and promotes the integration of efforts to improve public health with those efforts to protect the natural environment. The main goal of this approach is to reduce the risk of contaminating the drinking water by placing protective systems, such as source protection measures and water treatment and monitoring, between the water consumer and both actual and potential sources of contamination.



To be safe for drinking, water must be free of microbiological pathogens, and other contaminants must be kept at acceptable levels.

Federal role in drinking water

4.3 **Shared responsibility.** In Canada, ensuring the safety of drinking water is a shared responsibility. The legislative responsibility for regulating the provision of safe drinking water to the public generally falls under provincial or territorial jurisdiction. Municipalities usually oversee the day-to-day operation and maintenance of water treatment facilities and distribution infrastructure.

4.4 The federal government has responsibilities for the safety of drinking water provided in First Nations communities; at military bases, national parks and historic sites, federal correctional institutions, ports of entry, Canadian missions abroad, and other federal facilities; and on passenger trains, aircraft, and cruise ships travelling between provinces and internationally. These responsibilities can have an impact on millions of people, including employees and travellers. The Canadian Food Inspection Agency is responsible for enforcing the *Food and Drug Act* with respect to the quality of bottled water (bottled water was not examined as part of this audit). In addition, the federal government supports the provinces and territories in a number of ways—in particular, through science and research, the development of national water guidelines, funding for municipal infrastructures, and strategies for preventing water pollution.

Did you know?

- The percentage of Canadians who receive municipal drinking water: **About 75 percent**
- The number of municipal water treatment facilities in Canada that treat water from lakes, rivers, and groundwater sources: **About 4,000**
- The number of water-borne disease outbreaks reported in Canada between 1974 and 1996: **160 (involving about 8,000 people)**
- The number of boil-water advisory days in municipalities across Canada: **2,494 in 1993 and 3,100 in 1998—an increase of 24 percent**

4.5 Guidelines for Canadian Drinking Water Quality. Health Canada leads the development of the Guidelines for Canadian Drinking Water Quality by providing scientific expertise and co-ordination with the provinces and territories. The Federal-Provincial-Territorial (FPT) Committee on Drinking Water is mandated to update the Guidelines and develop new guidelines identified through risk assessments. This committee has been in place in one form or another since the mid-1970s.

Guideline—A specification of the maximum acceptable concentration of a contaminant in drinking water. The supporting documentation for a guideline includes a description of sources of exposure, detection methods, contaminants that can be removed using available treatment technology, and potential health effects.

4.6 The **Guidelines** cover 165 microbiological, physical, chemical, and radiological contaminants in drinking water that need to be eliminated or reduced to acceptable levels to ensure the protection of human health. The Guidelines are a tool used by purveyors of drinking water in Canada and are an important part of the multi-barrier approach to protecting drinking water.

4.7 The federal government's obligation for ensuring safe drinking water. The federal government is responsible for drinking water at military bases, national parks, and other federal facilities. Its obligation to provide potable water for federal employees stems from the *Canada Labour Code* and its regulations. Under the Code, potable water is defined as water that meets the Guidelines for Canadian Drinking Water Quality.

National Joint Council—A forum in which members, such as the public service bargaining agents and the Treasury Board of Canada Secretariat, take joint ownership of broad labour relations issues and develop collaborative solutions to workplace-related issues.

4.8 In 1989, through the **National Joint Council**, the Treasury Board of Canada Secretariat issued a Sanitation Directive that reiterates the requirement for the Guidelines to be met in buildings owned by the federal government and occupied by federal public service employees. For buildings not owned by the federal government but where federal employees work, the Sanitation Directive specifies that the Guidelines shall be applied to the "maximum extent that is reasonably practicable."

4.9 **The federal government's responsibility for drinking water on transportation conveyances.** Under the *Department of Health Act*, Health Canada has the duty and function to protect the health of Canadians on passenger trains, aircraft, and cruise ships and in their ancillary services, such as train stations and airports. The Potable Water Regulations for Common Carriers address the provision and treatment of water for drinking and culinary purposes on conveyances operated by common carriers. According to these regulations, Health Canada has the authority and obligation to inspect the quality of potable water provided on conveyances that are under the legislative authority of Parliament.

Conveyance—Any aircraft, train, vessel, motor vehicle, or other mode of transportation used in international traffic, interprovincial traffic, and traffic on the sea or a coast of Canada, on salt water bays, gulfs, and harbours of Canada, and on the Great Lakes and inland waters of Canada.

Common carrier—An owner of a conveyance, or any employee or agent that operates or manages it.

Previous audits

4.10 The Commissioner of the Environment and Sustainable Development conducted two previous audits that made recommendations on the quality of drinking water. The 2001 audit of the Great Lakes and St. Lawrence River Basin recommended that Health Canada clearly state its responsibility for protecting human health in the Basin from potential contaminants in drinking water. The 2003 audit of the safety and accessibility of pesticides recommended that Health Canada and Environment Canada ensure that they identify the need for and support the development of up-to-date water quality guidelines for the pesticides that pose the greatest risks to Canadians and their environment.

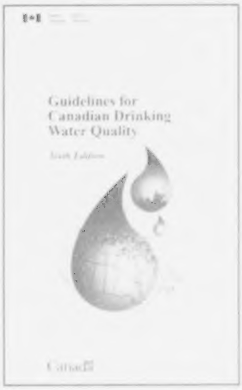
4.11 In addition, an environmental petition submitted under Section 22 of the *Auditor General Act* asked the federal Minister of Health and the Minister of the Environment to review the drinking water guideline for trichloroethylene (TCE) and to immediately address the problem of TCE contamination of drinking water in Beckwith Township, Ontario. The Commissioner audited and reported on the federal response to this petition in the 2001 and 2003 Environmental Petitions chapters.

Focus of the audit

4.12 The objectives of our audit were to answer the following questions:

- Are the Guidelines for Canadian Drinking Water Quality developed according to a process that is science- and risk-based, transparent, consultative, and timely?
- Is the federal government complying with its legal obligation to make sure the drinking water for its employees meets the Guidelines?

- How is the federal government managing and monitoring the quality of drinking water on interprovincial and international conveyances—that is, passenger trains, aircraft, and cruise ships?
- Are selected departments making progress in meeting the commitments on drinking water that they made in their sustainable development strategies? What is the status of the Federal Water Framework (a federal initiative on water)?
- Has Health Canada made progress in responding to selected recommendations and key observations from previous audits?



Guidelines for
Canadian Drinking
Water Quality

Sixth Edition

Canada

Booklet published by Health Canada

4.13 Our assessment of progress on sustainable development strategy commitments related to drinking water is discussed throughout the chapter and is summarized in Appendix A.

4.14 Issues on drinking water in First Nations communities are covered in Chapter 5 of this Report. Because our audit focussed on issues related to the quality of potable water, we did not audit the performance of the federal government in enforcing provisions of the *Food and Drug Act* for the quality of bottled water.

4.15 For more information about the audit objectives, scope, approach, and criteria, see **About the Audit** at the end of the chapter.

Observations and Recommendations

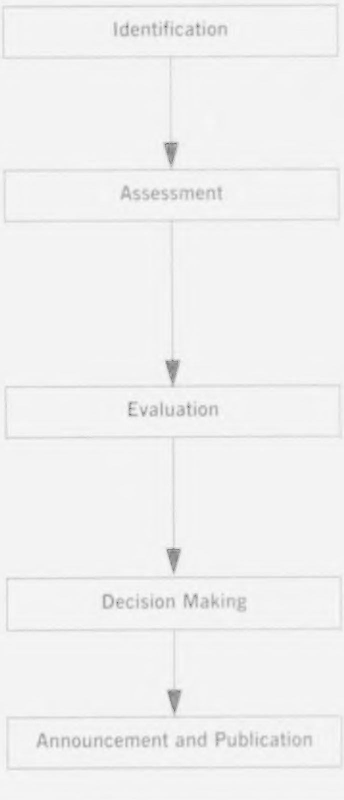
Developing the Guidelines for Canadian Drinking Water Quality

4.16 The Guidelines for Canadian Drinking Water Quality provide purveyors of potable water in Canada with maximum acceptable levels of contaminants, which they can use as treatment targets for clean, safe, and reliable drinking water for human consumption. Health Canada leads the development of the Guidelines. It uses available science and a consultative approach to assess the exposure of Canadians to contaminants present in water, determine the impacts of those contaminants on human health, and recommend efficient alternatives for water treatment. The Department reiterated its intentions to continue this work in its 2004 Sustainable Development Strategy.

4.17 **Health Canada supports the provinces and territories.** In its role as the technical secretariat of the FPT Committee on Drinking Water, Health Canada works with the provinces and territories to reach consensus on the Guidelines for Canadian Drinking Water Quality. They can then apply the Guidelines in their respective contexts. The Department reported that the provinces and territories use the Guidelines in a variety of ways. Some use them as general guidance, while others use them as water quality objectives to be attained; still others use them as standards to be met under their laws. Some provinces have adopted the Guidelines in full, while others have adopted specific guidelines that meet their needs.

4.18 **Are the Guidelines reliable?** Health Canada has established a comprehensive process for developing new guidelines and reviewing existing ones that require an update (Exhibit 4.1). The process is consultative, transparent, and based on risk and science (Exhibit 4.2).

Exhibit 4.1 **Health Canada's process for developing and reviewing the Guidelines for Canadian Drinking Water Quality**



- Health Canada determines the availability of scientific literature and federal monitoring data on the contaminant.
- Provincial and territorial jurisdictions provide monitoring data.
- Health Canada establishes a schedule for the guideline.

- Health Canada prepares the risk assessment for the contaminant.
- Health Canada prepares the supporting document for the guideline, including a proposed guideline value (maximum acceptable concentration of the contaminant).
- The supporting document undergoes a peer review.

- Health Canada submits a consultation document to the Federal-Provincial-Territorial (FPT) Committee on Drinking Water.
- The FPT Committee discusses the feasibility of implementing the guideline.
- Public consultation is carried out.
- Health Canada compiles and incorporates consultation feedback into the supporting document.

- Health Canada submits the final supporting document to the FPT Committee.
- The FPT Committee approves the guideline.
- The senior committee on national health and environmental issues makes final approval decisions.

- The guideline is published on Health Canada's Web site.

Source: Adapted from Health Canada

Exhibit 4.2 **Our observations on Health Canada's process for developing and reviewing the Guidelines for Canadian Drinking Water Quality**

Observations

Risk assessment

- Health risk assessments consider toxicological (animal) and epidemiological (human) studies on health effects, including cancer, and reproductive and developmental effects.
- The documentation produced for each guideline identifies health risks, potential sources of exposure, and the level of removal of contaminants that can be achieved by using available technology.

Science review

- Each guideline is subject to an extensive literature review and data search that describe aspects such as sources of the contaminant in the environment, national exposure data, detection methods, and treatment technology.
- Health Canada validates its science assessment through a peer review process and feedback from organizations such as the Canadian Water and Wastewater Association, the U.S. Environmental Protection Agency, and the World Health Organization.
- Health Canada and Environment Canada have active mechanisms in place to exchange scientific information pertaining to water.

Transparency

- Health Canada administers two Web sites to inform Canadians of current drinking water and health issues (*It's Your Health* and *Water Talk*).
- Health Canada uses its Web site to post information on the Guidelines for Canadian Drinking Water Quality, such as discussions, debates, and decisions of the FPT Committee, supporting documentation on guidelines, and requests for public consultation.
- Canadians can subscribe to an electronic newsletter and receive the latest news on the Guidelines by e-mail.

Consultation

- Health Canada develops the Guidelines in continuous consultation with provincial and territorial stakeholders.
- Health Canada submits the health risk assessment of each guideline to external experts for review.
- Each guideline is subject to a public consultation.

The process for developing and reviewing guidelines is slow

4.19 According to Health Canada, a guideline should take two to three years to develop or review, from identification to final approval and publication. However, we found that it took four years to review the guideline for aluminum and seven years to review the guideline for *Escherichia coli* (E. coli). Further, after eight years on the FPT

Committee's agenda, the guideline for arsenic is still at the public consultation stage.

4.20 In its 2001 Sustainable Development Strategy, Health Canada committed to developing or updating at least six guidelines by the end of March 2004. The Department's interpretation of this commitment was that by that time it would have completed the assessment phase of the guidelines and would be ready for public consultation; after that point in the process (Exhibit 4.1), the FPT Committee mainly determines approval of the guidelines. Based on this interpretation, we found that Health Canada met its deadline of March 2004 for completing the assessment phase of six guidelines. However, the assessment phase for five of the six guidelines started between 1994 and 1999—long before the 2001 commitment. In fact, the assessment phase for those guidelines, which represents only a portion of the process, spanned over a period of three to seven years. This phase alone exceeds the two to three-year time frame that Health Canada set to carry out the entire process. Moreover, the consultation period, together with the decision making and approval by the FPT Committee, further delayed publication of the guidelines by up to an additional four years.

4.21 The Department indicated that it has not yet set clear internal timelines to complete the assessment of guidelines. In our view, the process for developing guidelines remains consistently slow, delaying the development of new guidelines and the review of existing ones for contaminants that Health Canada and the FPT Committee have identified as posing a risk to human health.

4.22 **Recommendation.** Health Canada should set clear internal timelines for the development and review of drinking water guidelines and should continue to work with the Federal-Provincial-Territorial Committee to develop options to accelerate the process of approval of these guidelines. Factors impeding the approval and publication of guidelines should be made fully transparent to Canadians.

Health Canada's response. Health Canada has streamlined the guideline development process over the past two years to meet a target of developing between five and seven guidelines per year. This is based on a timeline of two to three years required to develop, review, and approve a guideline and on the increased number of scientists currently conducting evaluations. A range, rather than a fixed length, of time is appropriate, as there are many factors that influence the time needed to complete a guideline (for example, single or multiple forms of a particular contaminant, limited or more potential health implications, and single or multiple exposure pathways). A multi-year work plan that reflects the two to three-year timeline for developing individual guidelines will be prepared for approval of the Federal-Provincial-Territorial Committee on Drinking Water.

The streamlined process also includes measures already being implemented to accelerate the approval process. These measures focus on the defining of milestones and targets for all guidelines being assessed, development and implementation of standard operating procedures and best practices, ongoing communication between committee members to ensure early identification and resolution of concerns, and approvals of guidelines outside of regularly scheduled committee meetings. Health Canada will monitor this process and propose changes, if necessary, to ensure timely development and approval of guidelines.

In addition, the status of guidelines under development, including reasons for any delays, such as new information (scientific, technological) or the need to develop and apply new methodology in the risk assessment, will be posted on the Health Canada Web site.

4.23 **The case of trichloroethylene**. A guideline for trichloroethylene (TCE) was first published in 1987. In 1993, TCE was declared a toxic substance under the *Canadian Environmental Protection Act*, putting it on the priority list of substances that Health Canada must review. However, the Department did not give a higher priority to reassessing the TCE guideline until May 2000.

4.24 In October 2000, we received an environmental petition (Petition No. 25) requesting an update of the maximum allowable concentration for TCE. The Minister of Health responded to the petition and committed to speeding up the review of the guideline for TCE. In 2003, we followed up on the petition and found that Health Canada took two years to complete the assessment of the guideline. Further evaluation by the FPT Committee delayed the approval of the guideline. In May 2005, after 12 years on the agenda, the guideline for TCE was finally approved by the FPT Committee.

4.25 **Follow-up on guidelines for pesticides**. Pesticide use in Canada has resulted in contamination of drinking water. The Guidelines for Canadian Drinking Water Quality currently cover 30 pesticides registered in Canada. In 2003, we reported that the development of guidelines for pesticides lagged behind the registration and use of new pesticides and recommended that Health Canada develop guidelines for the pesticides that pose the greatest risks to Canadians. In its response to the recommendation, Health Canada committed to establishing a ranking of pesticides that have the greatest potential to contaminate surface and ground waters, to consider in the priority-setting process for the Guidelines.

4.26 This audit was an opportunity to follow up on progress made to fulfill this commitment. Health Canada indicated that this work is under way and is to be completed by the end of 2005.

A backlog of guidelines to be reviewed

4.27 The types of guidelines that Health Canada develops for drinking water consist of microbiological, chemical, physical, and radiological guidelines. Microbiological guidelines are the highest priority, and as such, the Department reviews them continually. In contrast, the review of other types of guidelines is triggered by new data on health and exposure risks. However, Health Canada has been unable to review chemical and physical guidelines on a timely basis. About 50 of the 83 chemical and physical guidelines are older than 15 years and may need to be updated to reflect current science and to protect the health of Canadians. In our view, this backlog of guidelines is unacceptable.

International organizations co-operate in developing guidelines for drinking water

Like Health Canada, agencies such as the United States Environmental Protection Agency and the World Health Organization (WHO) develop guidelines and standards for water quality.

Health Canada takes health risk data compiled by its international counterparts into consideration when developing the Guidelines for Canadian Drinking Water Quality. The Department also participates in the development of the WHO drinking water guidelines.

4.28 Health Canada acknowledges the backlog and has already taken action to streamline the assessment of guidelines. For example, the Department uses templates and checklists to ensure the consistency of guideline documentation and is implementing standard operating procedures to facilitate the evaluators' work. To make the most of available resources, Health Canada produced a priority list of contaminants to be addressed, based on health risks, exposure, and recent developments in water analysis and treatment. In addition, the FPT Committee has reduced the public consultation period where appropriate. However, we believe this may not be sufficient to address the current backlog in a timely manner.

4.29 In the 2002 Speech from the Throne, the federal government committed to accelerating its work with the provinces to improve national water quality guidelines. Despite this commitment, Health Canada has indicated that the budget of the unit tasked to develop the Guidelines for Canadian Drinking Water Quality has decreased from $3.38 million to $2.70 million—a 20 percent reduction between 2001 and 2005.

4.30 Health Canada currently has 13 evaluators tasked to both develop new guidelines and address the current backlog of about 50 chemical and physical guidelines that need to be reassessed. At the current pace, it will take at least 10 years to deal with this backlog. Should emerging contaminants be added to this list, the backlog could worsen.

4.31 **Recommendation**. Health Canada should produce and implement a work plan to address the backlog of about 50 drinking water guidelines that may need to be updated to reflect current science, clearly indicating which guidelines are to be reviewed, their priority ranking, revision targets, and related timelines.

Health Canada's response. In 2004, Health Canada completed a comprehensive review of all the Guidelines for Canadian Drinking Water Quality, regardless of the age of the guidelines and including those developed over 15 years ago (referred to as backlog). This process has identified the existing guidelines requiring revision, and priorities for developing new and existing guidelines will be defined based on risk to public health, rather than on the age of a guideline. This comprehensive review will be conducted biennially to identify guidelines to be revised.

Over half of the guidelines older than 15 years have been reaffirmed, as they are protective of human health. The list of reaffirmed guidelines will be posted on the Department's Web site, along with a list of guidelines that are candidates for revision.

The remaining guidelines older than 15 years and other more recent guidelines are either scheduled for revision in the current work plan or will be considered for revision in a multi-year work plan to be developed and approved by the Federal-Provincial-Territorial Committee on Drinking Water.

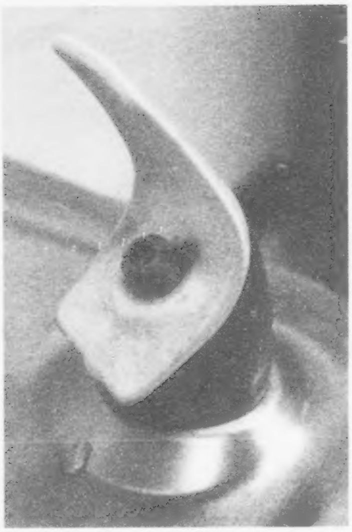
Health Canada needs to continue its efforts to promote the Guidelines

4.32 The Guidelines for Canadian Drinking Water Quality do not include a priority rating for contaminants that could guide the efforts of involved parties in monitoring contaminants and implementing protective measures. As committed in its 2004 Sustainable Development Strategy, Health Canada recently produced *From Source to Tap: Guidance on the Multi-Barrier Approach to Safe Drinking Water.* This approach recognizes that not every potential hazard requires the same degree of attention and that resources should be directed to address the greatest risks.

4.33 To build upon this guidance, Health Canada is leading an initiative to develop a list of high-risk contaminants that would enable purveyors of drinking water with limited capacities to better focus their monitoring efforts. We encourage Health Canada to pursue this initiative.

Federal compliance with the Guidelines for Canadian Drinking Water Quality

4.34 The *Canada Labour Code* requires the Guidelines for Canadian Drinking Water Quality to be applied by all federally regulated employers. To assess if the federal government is complying with its legal obligation to provide drinking water that meets the Guidelines, we selected a sample of six federal departments and agencies that are the custodian of several facilities and/or serve a large population. These were the Canada Border Services Agency, Correctional Service Canada, Foreign Affairs Canada, the Department of National Defence, Public Works and Government Services Canada, and the Parks Canada Agency. From these six departments and agencies, we looked at 35 sites that reflect the diversity of federal facilities. They included national parks and historic sites, military bases, federal correctional institutions, ports of entry, Canadian missions abroad, and federal office buildings.



The federal government is responsible for drinking water at military bases, national parks, and other federal facilities.

Departmental procedures are inconsistent

4.35 The six departments and agencies we audited either had developed or were developing management or control procedures for drinking water at their sites and facilities. In examining the procedures, we focussed on two elements that are essential to providing safe drinking water: risk assessment and testing requirements.

4.36 **Importance of conducting a risk assessment.** The management of drinking water is a complex domain. To ensure the safety of drinking water provided at their facilities, departments and agencies need to consider several factors, such as the following:

- water source (municipal or non-municipal, surface or groundwater);
- the size and location of the water treatment system (small or big, accessible or remote);
- the water treatment regime (disinfection or filtration);
- the distribution system's design (old or new, simple or complex); and
- the operational requirements (frequency of monitoring and testing, maintenance, certification of staff).

Variability in these factors will determine the level of risk of the water system and the effort needed to ensure the safety of the drinking water. This includes the extent of the treatment, monitoring procedures, sampling and testing frequency, and other management actions.

4.37 Of the six departments and agencies we looked at, three of them—National Defence, Correctional Service Canada, and Public Works and Government Services Canada—provided guidance on how to manage the level of risk posed by their water sources. We asked officials from 18 sites of these three organizations if they had indeed conducted risk assessments; the majority had not. The Canada Border Services Agency took a different approach by conducting site-specific risk assessments for facilities receiving water from a non-municipal source. However, testing regimes implemented by the Agency's headquarters are not fully risk-based.

4.38 The departments and agencies we audited acknowledged their responsibilities under the *Canada Labour Code* to provide potable water to their employees and are aware of their obligations to meet the Guidelines for Canadian Drinking Water Quality. Thus, we expected departmental procedures to include testing requirements that are consistent with the Guidelines. What we found is a patchwork of procedures, ranging from comprehensive (National Defence, Correctional Service Canada, and Public Works and Government Services Canada) to incomplete (Canada Border Services Agency and Parks Canada Agency) or unclear (Foreign Affairs Canada).

Mix of bacteriological testing regimes at selected sites

4.39 Although drinking water that is safe for human consumption must meet all chemical, physical, microbiological (including bacteriological), and radiological guidelines described in the Guidelines for Canadian Drinking Water Quality, we specifically examined the testing for bacteriological parameters at all of the sites since they constitute the most critical element that could pose an imminent risk to human health.

4.40 Testing regimes depend on a number of factors, such as the size of the population served and the source of water (municipal or non-municipal). The number of test samples can be reduced if the risk of contamination has been found to be low. For example, sites receiving water from a municipal source normally would not need to test as frequently as sites receiving water from a non-municipal source.

Testing the microbiological quality of water

Microbiological water quality is currently determined mostly by testing for two parameters — total coliform bacteria and faecal coliform bacteria, using the species E. coli as an indicator of the latter. The Guidelines for Canadian Drinking Water Quality specify that routine water testing for E. coli is important since its presence is also an indication that other harmful micro-organisms, such as viruses or protozoa, could be present. Guidelines specify that no sample should contain E. coli or other coliform bacteria.

4.41 We found a mix of testing regimes, both within an organization and between organizations. This mix reflected highly variable levels of compliance with the Guidelines, ranging from non-compliance to exceeded compliance. We found 10 sites that were not testing the water at all. In our view, although 9 of these sites had their water provided by a municipal source, some testing is still necessary based on an analysis of risk.

4.42 **Testing for E. coli at federal sites.** The presence of E. coli, a definite indicator of faecal water contamination, can pose an imminent risk to human health. As recommended in the Guidelines, its detection should trigger an immediate boil-water advisory. We looked to see if all facilities receiving water from a non-municipal source were testing for E. coli and, in cases where E. coli was detected, if the facility issued an immediate boil-water advisory as recommended in the Guidelines. Of the 15 sites we looked at that receive water from a non-municipal source, we found one that did not test for E. coli and another that did not know if testing for E. coli was being done. We also found five cases of confirmed presence of E. coli in tap water. In all cases, immediate action was taken to remediate the situation. However, of the five cases reported, two did not issue an immediate boil-water advisory as recommended by the Guidelines.

Gastrointestinal illness can be life-threatening

The most common disease attributable to water-borne disease-causing micro-organisms is gastrointestinal illness or diarrhea. Although gastrointestinal illness is generally considered to be non-life threatening in healthy adults, mortality can occur in sensitive subpopulations such as infants, the elderly, and individuals with weak immune systems.

Need for clear central guidance

4.43 The variable compliance we found in the departmental procedures and in the testing regimes at the sites we looked at points to the need for clearer central guidance. Although federal departments and agencies are all subject to the *Canada Labour Code*, they have different policies, procedures, and requirements for safe drinking water. This has resulted in the government's inconsistent compliance with the federal Guidelines and, in some cases, exposure of employees to potential health risks. The current information provided in the *Canada Labour Code* and in the Sanitation Directive, issued by the Treasury Board of Canada Secretariat through the National Joint Council, is not sufficient to provide guidance to departments and agencies. It does not clearly outline the steps of a risk-based approach to ensure that drinking water is safe and meets the Guidelines.

4.44 In its 2004 Sustainable Development Strategy, Health Canada recognized the need to provide additional guidance to federal departments and agencies on how to meet the requirements of the Guidelines. It has committed to working with other federal departments and agencies to develop a compliance framework for drinking water quality in areas of federal jurisdiction.

4.45 **Comprehensive, risk-based draft guidance document.** To fulfil this sustainable development strategy commitment, Health Canada established an interdepartmental working group comprising 11 other departments and agencies and produced a draft guidance document. This document is comprehensive, covering all aspects of a drinking water system, and it provides guidance on drinking water issues faced by departments and agencies, including sampling and testing requirements, assessment of the water source, and operational standards. The document is also risk-based: It stipulates that the level of effort to ensure the safety of drinking water depends on site-specific factors and indicates the frequency of sampling and testing for specific conditions. Further, the document applies to all federal government organizations providing drinking water to federal employees, as well as to inmates, visitors, and clients, because departments and agencies are accountable for the safety of the water provided at their facilities.

Did you know?

- The estimated number of visitors to national parks and national marine conservation areas in 2003–04: **About 12 million**
- The number of people employed in the federal public service in 2004: **366,664**
- The number of inmates in federal correctional institutions in 2003–04: **About 12,000**

4.46 **Recommendation.** Health Canada should finalize and issue to all deputy heads, the guidance it has developed for providing safe drinking water in areas of federal jurisdiction. It should also update the guidance as needed and promote its use by federal organizations.

Health Canada's response. The document *Guidance for Providing Safe Drinking Water in Areas of Federal Jurisdiction* was finalized and approved by the Interdepartmental Working Group on Drinking Water in June 2005, after consultations with each of the departments involved.

The guidance document will be posted on the Health Canada Web site, and Health Canada's Deputy Minister will inform all deputy heads of the posting of the document. The Department will review and update the guidance document on a periodic basis, in consultation with the Interdepartmental Working Group. Health Canada and the co-chairs of the Interdepartmental Working Group will collaborate with the Treasury Board on adoption of the guidance document as per recommendation 4.47.

4.47 **Recommendation.** The Treasury Board of Canada Secretariat, through the National Joint Council, should adopt the guidance for providing safe drinking water in areas of federal jurisdiction, as a requirement under the Sanitation Directive.

Treasury Board Secretariat's response. When the National Joint Council opens the directive for renegotiation, the Treasury Board Secretariat will table wording recommending the guide be entrenched in the Sanitation Directive.

Drinking water on passenger trains, aircraft, and cruise ships

4.48 Each year, millions of Canadians and international visitors travel on passenger trains, aircraft, and cruise ships that originate from or transit through Canada. If the water systems in place are not adequate, the health of passengers travelling on these modes of transportation could be at risk from contaminated water used for drinking, making ice, and preparing food and beverages. We assessed the mechanisms used by Health Canada to protect the travelling public, including the legislative framework and the inspection process.

Did you know?

- The number of passengers who travelled on Via Rail in 2004? **About 3.9 million**
- The number of passengers who travelled on cruise ships docked at major Canadian ports in 2004? **About 1.3 million**
- The number of passengers who travelled on domestic, transborder, and international flights in Canada in 2004? **About 60 million**

4.49 **Legislative framework.** Through the Potable Water Regulations for Common Carriers, Health Canada has the authority and obligation to board and inspect the drinking water and drinking water systems provided by common carriers on conveyances and in their ancillary services. Under the Regulations, common carriers are responsible for ensuring the provision of potable water on their conveyances by sterilizing and maintaining potable water systems. The responsibilities of common carriers to self-monitor are also outlined in Health Canada's inspection programs and are shared through Health Canada's agreements with common carriers.

4.50 **Potable water regulations are dated.** Adopted in 1954, the Potable Water Regulations do not refer to the Guidelines for Canadian Drinking Water Quality, unlike the regulations under the Canada Labour Code that govern the quality of drinking water. We understand that ancillary services include facilities inside and on the grounds of stations, airports, and terminals that are used to service railways, ships, aircraft, and other conveyances. However, the Potable Water Regulations do not clearly define what is included in ancillary services for common carriers, thereby creating a grey area for inspection responsibilities. Further, the penalties for violating the provisions in the Regulations (a fine not exceeding $200 or imprisonment of three months) may need to be reconsidered.

4.51 **Inspection programs.** Health Canada has been conducting inspections on conveyances for more than 30 years. In the mid-1990s, following a major evaluation of departmental programs, direct funding for Health Canada's inspection program was removed. Since then, Health Canada has been recovering inspection costs from inspected common carriers under voluntary agreements. Health Canada currently has inspection agreements with two major common carriers for trains; for cruise ships, it has a harmonized inspection process with the United States Centers for Disease Control and Prevention (Exhibit 4.3).

Exhibit 4.3 **Health Canada's inspection process for passenger trains and cruise ships**

- Health Canada's environmental health officers examine the potable water and potable water systems, including records of testing and illness on passenger trains and cruise ships. Inspections also include examining food preparation and general sanitation.
- Inspections take place one or two times per year.
- A scoring system is used for all items examined to form an overall assessment, with critical items that could pose an imminent health risk being given a higher point rating.
- The total score is used to determine passing or failure of the inspection.
- The captain or manager of the conveyance is notified of the score and of necessary corrective actions immediately following the inspection.
- Common carriers are suggested to promptly provide Health Canada with a statement describing the corrective actions taken.
- If an imminent health risk is found on a cruise ship, Health Canada can recommend that it not sail. The Department can also issue a travel advisory if violations found on a conveyance may pose a danger to public health.

No potable water inspections on aircraft

4.52 Health Canada does not have any agreements with airlines. As a result, it is not conducting inspections of potable water on any aircraft. While the Department has developed draft inspection procedures and guidelines for aircraft, negotiations to implement these inspection procedures under voluntary agreements have not been successful. Thus, Health Canada cannot provide assurance on the quality of potable water provided by airlines in Canada. In comparison, the United States currently has agreements with 12 airlines, and is negotiating separate agreements with two additional airlines to increase monitoring of water quality testing, conduct regular disinfection of water systems, and abide by strengthened requirements for public notification (these 14 airlines represent the majority of U.S. aircraft transporting the public). In studies conducted in 2004, the United States Environmental Protection Agency tested water supply tanks on 327 domestic and international passenger aircraft. The tests revealed that about 15 percent of the aircraft tested carried water contaminated with coliform bacteria.

4.53 **Recommendation.** Health Canada should take measures to clearly assure Canadians that potable water on aircraft is safe on a continuing basis, including recommencing routine inspections.

Health Canada's response. Health Canada has had ongoing negotiations with the airline industry for the last four years. The industry, represented by the Air Transport Association of Canada, has stated it is unwilling to pay for inspections by Health Canada. The Department will continue to work with the airlines to bring them into Health Canada's voluntary, cost-recovered inspection program.

Health Canada will continue to inspect aircraft in the case of a complaint, emergency, or other event where there is evidence of a public health risk. The Department will examine funding options to ensure that the airline industry is subject to routine potable water inspections, taking into account inequities that may be incurred with other conveyances that already pay to participate in the voluntary, cost-recovered program.

Gaps and inconsistencies in Health Canada's inspection approach

4.54 We recognize that Health Canada has comprehensive inspection protocols for cruise ships and is working with two major train companies toward a similar comprehensive management system. However, we identified a series of gaps and inconsistencies in the Department's current inspection approach.

- Overall, the majority of cruise ships inspected receive high passing scores. However, for passenger trains and cruise ships, the consequences for critical violations and inspection failures are unclear. For example, a cruise ship that received failing inspection scores in two consecutive years continued to sail despite these failures (see Example of inspection failure of a cruise ship, page 22). Health Canada informed us that it does not have the authority to stop a ship from sailing.

- The rationale for the frequency of train inspections has not been given (the number of inspections is small relative to the thousands of trips that occur each year). The rationale for the frequency of water testing on trains is also unclear.

- We recognize that Health Canada is currently improving the way it tracks inspections, critical violations, and corrective action statements by developing and expanding a centralized information system. However, inspection reports are not comprehensive. For example, reports do not systematically include descriptions of immediate corrective action witnessed by inspectors while on board cruise ships.

- Gaps in communication exist within Health Canada. Corrective action statements are not systematically posted within the information tracking system; thus, they may not be available for review by inspectors.

- There are also gaps in communication to the public. Inspection scores and findings for train companies are currently not made available to the public. Communication of the results of cruise ship inspections to passengers is not timely or comprehensive, and Health Canada does not have a formal mechanism to ensure that inspection failures are communicated to passengers. In contrast, the U.S. Vessel Sanitation Program Web site lists both inspection scores and detailed findings.

- Health Canada inspectors indicated to us that increased training was needed to achieve a uniform understanding of inspection criteria nationwide and ensure understanding of increasingly complex water systems on cruise ships.

Example of inspection failure of a cruise ship

In 2001, a cruise ship was inspected and received a failing score of 43 out of 100. A passing score for a cruise ship is 86 out of 100. Critical violations found related to water included the following:

- Potable water could not be chlorinated or brominated to the minimum required level during water uptake.
- Disinfection was inadequate at the most distant point in the water system.
- Chart recorders for potable water systems were not present on the ship.
- Backflow preventors or non-return valves were not installed in several areas on the ship.
- Potable water uptake equipment was not stored and marked in accordance with prescribed methods.

Health Canada officials deemed these deficiencies as serious concerns that could pose potential health problems. On returning to a Canadian port in 2002, the cruise ship received a failing score of 64 out of 100, with critical water violations contributing to the failing score once again. Health Canada communicated with the ship's common carrier about necessary corrective action. However, the ship continued to sail, demonstrating a lack of consequences for critical violations and inspection failures.

Source: Adapted from Health Canada

4.55 Recommendation. Health Canada should revise the Potable Water Regulations for Common Carriers to include reference to the Guidelines for Canadian Drinking Water Quality, a clear definition for ancillary services, and more appropriate penalties for non-compliance.

Health Canada's response. Health Canada acknowledges the need for updated legislation to address public health risks on conveyances and is proposing a more comprehensive approach. A new comprehensive regulation for conveyances and their ancillary services (to replace the Potable Water Regulations for Common Carriers) will address penalties, definitions, and referencing of the Guidelines for Canadian Drinking Water Quality. It will also address risks associated with potable water as well as food, air quality, and general sanitation. This regulation would support Health Canada's commitments under the new *Quarantine Act* and the recently revised International Health Regulations (World Health Organization).

Status of the Federal Water Framework

4.56 In addition to its responsibilities for ensuring safe drinking water, the federal government has numerous other water-related responsibilities concerning boundary waters, navigable waters, Arctic waters, fisheries, project environmental assessments, and other areas. At least 19 federal departments and agencies are involved in a web of activities related to water; thus, a coherent and co-operative approach is necessary. Over the years, the government has attempted to accomplish this in various ways, including through the Federal Water Policy.

4.57 **A stagnant federal water policy.** In 1987, the federal government issued its Federal Water Policy following a comprehensive consultation on water in Canada. The policy sketched broad courses of action for Canada's freshwater resources that would be further developed in time. It proposed five strategic objectives: realistic pricing, science leadership, integrated planning, legislative renewal, and public awareness. These objectives were supported by policy commitments in 25 areas of federal concern. The policy was considered to be one that would evolve with changing priorities and viewpoints. Two progress reports were issued—in 1990 and 1994—but no other report was produced afterwards. Furthermore, during the early 1990s, there were major cutbacks in federal water programs.

4.58 **Renewed federal interest in water.** Since 2000, there has been a renewed interest in water issues, partially triggered by the tragic events of Walkerton, Ontario. The federal government declared water as a sustainable development priority in 2003. A senior-level interdepartmental committee, co-chaired by Environment Canada and Health Canada, was given a mandate to develop a Federal Water Framework to address issues related to freshwater quality and quantity. The committee spent time, money, and effort to develop the Federal Water Framework, which was approved by its parent committee at the deputy minister level in February 2004. The Framework begins with a vision: "Clean, safe, and secure water for people and ecosystems." Associated with this vision are five ultimate outcomes encompassing the scope of federal activity on water. These outcomes relate to protecting human health through safe drinking water, ecosystem health, sustainable use and economy, hazards and environmental prediction, and the global dimension.

4.59 The federal departments and agencies dealing with water issues are involved in a number of ways, from their internal operations through to Canadian assistance abroad. In light of this broad scope and in support of the Federal Water Framework, the Treasury Board Secretariat made a commitment in its 2004 Sustainable Development Strategy to catalogue current federal water activities. Although the Secretariat was not able to meet its targeted completion date of February 2004, it did collect information from all departments and agencies involved, except for one department that still has not provided all the requested information.

4.60 **Unclear next steps.** The Federal Water Framework is a first step toward a coherent approach to dealing with water at the federal level. However, both senior-level committees responsible for overseeing the development of the Federal Water Framework have been inactive since the spring of 2004. Thus, the status of the Federal Water Framework is currently unclear and its future is uncertain.

4.61 **Recommendation.** Environment Canada, in collaboration with other federal departments and agencies, should establish clear next steps on what the Federal Water Framework will be used for, particularly in relation to its five ultimate outcomes.

Environment Canada's response. In September 2004, the Minister of the Environment launched a process to develop a Competitiveness and Environmental Sustainability Framework for Canada (CESF). The purpose of the Framework is to attain the highest level of environmental quality as a means to enhance the health and safety of Canadians, preserve our natural environment, and advance our long-term competitiveness.

The Federal Water Framework will help to reaffirm federal water policy priorities through the CESF. Some 19 federal departments completed the water framework task to describe their activities along five ultimate outcomes. The Water Framework serves as a tool to assist in identifying strengths and gaps in the departments' activities to address a full spectrum of water issues. Environment Canada will continue to promote the intent of the framework for priority setting and integrating water-related activities across the government.

As key next steps, outcomes of the Federal Water Framework will be integrated into the broader CESF along the following lines:

Federal Water Framework outcomes	**CESF outcomes**
Human health Hazards and environmental prediction	Health and safety of Canadians
Ecosystem health	Natural environment
Sustainable use and economy	Long-term competitiveness

The primary strategies for achieving the outcomes of the Federal Water Framework will be used in developing elements of the CESF related to water. A round-table discussion on water through the Deputy Ministers' Policy Committee on Environment and Sustainability will help to reaffirm federal water priorities and align water-related activities across mandates with the CESF. This round-table discussion and the above-noted alignments are planned for the fall of 2005.

Conclusion

4.62 The Guidelines for Canadian Drinking Water Quality are developed through a process led by Health Canada that is based on risk, science, consultation, and transparency. Despite a commitment by the federal government to accelerate work with the provinces to improve the Guidelines, the process remains very slow, and there is a backlog of about 50 guidelines that may need to be updated to reflect current science.

4.63 All six federal departments and agencies we looked at are subject to the *Canada Labour Code* but have different internal policies, procedures, and requirements in place for safe drinking water; half are comprehensive while others are incomplete or unclear. We also observed a mix of testing regimes at the 35 selected sites, resulting in the government's inconsistent compliance with the federal Guidelines. This patchwork points to the need for central guidance in order to better protect human health in areas of federal jurisdiction. However, for sites where testing is conducted, remedial action was taken in cases where bacteriological contamination was detected.

4.64 There are weaknesses in Health Canada's inspection approach for passenger trains, aircraft, and cruise ships. The Department does not know if potable water on aircraft is safe because it does not conduct any water inspections. The inspection protocols for cruise ships are comprehensive, and Health Canada is working with two major train companies toward a similar comprehensive management system. However, we identified some gaps and inconsistencies—the most significant being dated regulations.

4.65 The 1987 Federal Water Policy sketches broad courses of action for Canada's freshwater resources. Following two progress reports in the 1990s, the policy became stagnant. In 2003, the federal government stated that freshwater is one of its sustainable development priorities. Senior government officials have spent considerable time, money, and effort to develop the Federal Water Framework, which was approved by deputy ministers in 2004. However, its status is currently uncertain and its function has never been clearly defined.

4.66 Overall, Health Canada and the Treasury Board Secretariat have made satisfactory progress on selected commitments related to drinking water in their sustainable development strategies.

About the Audit

Objectives

The audit's three objectives were the following:

- Determine whether the federal government develops and provides guidelines for protecting drinking water quality, based on a credible process.
- Determine the extent that the federal government provides potable water at federal facilities and on Crown lands, in compliance with the Guidelines for Canadian Drinking Water Quality, and assess its management and monitoring systems for potable water provided by common carriers.
- Assess progress made by selected federal government departments and agencies toward meeting sustainable development strategy commitments and responding to key observations and recommendations by the Commissioner of the Environment and Sustainable Development relevant to water management and the protection of drinking water.

Scope and approach

We had three lines of enquiry, corresponding with our objectives.

Guideline development process

We examined whether Health Canada had defined clear roles and responsibilities for developing the Guidelines for Canadian Drinking Water Quality and fulfilled its mandate as the technical secretariat of the Federal-Provincial-Territorial Committee on Drinking Water. We expected Health Canada to have developed a process for developing guidelines that is transparent, timely, and based on risk, science, and consultation. We investigated the development of three drinking water guidelines (aluminum, arsenic, and E. coli) and followed up on past key observations and recommendations from previous audits (trichloroethylene and pesticides). We assessed whether Health Canada and Environment Canada had mechanisms in place to exchange water-related scientific information. We also assessed if Health Canada had analyzed the degree of application of the Guidelines by provinces and territories.

Federal compliance and common carriers

We assessed the extent of the federal government's compliance with requirements to provide potable water at selected federal facilities and Crown lands.

Six departments and agencies were selected to reflect the diversity (urban and remote, large and small) of sites and facilities where the federal government provides drinking water, the populations served (employees, clients, and visitors), as well as geographic coverage. They were the Canada Border Services Agency, Correctional Service Canada, Foreign Affairs Canada, National Defence, Public Works and Government Services Canada, and the Parks Canada Agency.

For each of the selected departments and agencies, we conducted field visits or requested that they complete an on-line survey on the provision of drinking water at the sites. We gathered data and examined supporting documentation for 35 federal sites, which we selected using a purposeful approach. That is, we selected sites representing different types of federal operations across the country and served by municipal or non-municipal sources of drinking water, in order to provide an indication of the state of federal compliance.

We examined central, internal procedures and instructions provided by departments and agencies, as well as government-wide policy and guidance documents produced by Health Canada and the Treasury Board of Canada Secretariat.

We also examined Health Canada's Workplace Health and Public Safety Program's effectiveness in monitoring compliance on conveyances (passenger trains, aircraft, and cruise ships).

Progress by selected departments in meeting strategy commitments on drinking water and follow-up on previous key audit observations and recommendations on drinking water.

Sustainable development strategy commitments. We examined the following:

- Health Canada's work to develop or update at least six drinking and recreational water quality guidelines (2001 strategy);
- Health Canada's work to develop the Guidelines for Canadian Drinking Water Quality; we also assessed its progress in developing an integrated source-to-tap approach to drinking water quality in Canada (2004 strategy);
- Health Canada's work to develop a compliance framework for drinking water quality in areas of federal jurisdiction (2004 strategy);
- the Treasury Board Secretariat's work to catalogue current federal water activities in support of the Federal Water Framework (2004 strategy); we also assessed the status of the Federal Water Framework.

Follow-up on previous audit work. We examined the following:

- Health Canada's work to develop a guideline for TCE (Chapter 7 of our 2001 Report and Chapter 4 of our 2003 Report).
- We examined Health Canada's work to support the development of up-to-date water quality guidelines for pesticides that pose the greatest risks to Canadians and their environment (Chapter 1 of our 2003 Report).

Some quantitative information in this chapter is based on data drawn from various federal and other sources. We are satisfied with the reasonableness of the data, given their use in our chapter. However, the data have not been audited, unless otherwise indicated in the chapter.

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Appendix A Progress in meeting sustainable development strategy commitments on drinking water

We assessed the progress made by selected federal government departments in meeting their sustainable development strategy (SDS) commitments on water management and protection of drinking water. The numbers in parentheses, under Observations, indicate the paragraphs where the topic is discussed.

Commitment	Progress	Observations
Treasury Board of Canada Secretariat Lead the collection of policy and program information related to water from all involved federal departments. (2004 strategy)	●	Water is an issue that involves at least 19 federal departments. The Treasury Board Secretariat was not able to meet its targeted completion date of February 2004. Nevertheless, the Secretariat collected information from all departments and agencies involved, except for one department. (4.59)
Health Canada Continue to develop the Guidelines for Canadian Drinking Water Quality. (2004 strategy)	●	Health Canada, as the technical secretariat of the FPT Committee on Drinking Water, continues developing science-based guidelines for drinking water quality. (4.16)
Develop an integrated, source-to-tap approach to drinking water quality in Canada. (2004 strategy)	●	Health Canada, in collaboration with Environment Canada and the provinces and territories, produced two documents: *The multi-barrier approach to safe drinking water* (2002) and *From source to tap: Guidance on the multi-barrier approach to safe drinking water* (2004). (4.32)
Work with other federal departments to develop a compliance framework for drinking water quality in areas of federal jurisdiction. (2004 strategy)	◓	Health Canada, in fulfilling its commitment, has established an interdepartmental working group comprising 11 other departments and agencies. It has also produced a draft guidance document that is comprehensive and risk-based but is still at the draft stage. (4.44-4.45)
Develop or update at least six drinking and recreational water quality guidelines, in collaboration with the provinces and territories. (2000 strategy)	●	Health Canada developed the following six drinking water quality guidelines: bacteriological quality, boil-water advisory, cyanobacterial (microcystin lr), turbidity, virus, and trichloroethylene (TCE). (4.20)

● Commitment met ◓ Some progress ○ Limited or no progress

Appendix B List of recommendations

The following is a list of recommendations found in Chapter 4. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
Developing the Guidelines for Canadians Drinking Water Quality	
4.22 Health Canada should set clear internal timelines for the development and review of drinking water guidelines and should continue to work with the Federal-Provincial-Territorial Committee to develop options to accelerate the process of approval of these guidelines. Factors impeding the approval and publication of guidelines should be made fully transparent to Canadians. **(4.19–4.21)**	Health Canada has streamlined the guideline development process over the past two years to meet a target of developing between five and seven guidelines per year. This is based on a timeline of two to three years required to develop, review, and approve a guideline, and on the increased number of scientists currently conducting evaluations. A range, rather than a fixed length, of time is appropriate as there are many factors that influence the time needed to complete a guideline (for example, single or multiple forms of a particular contaminant, limited or many potential health implications, and single or multiple exposure pathways). A multi-year work plan that reflects the two to three-year timeline for developing individual guidelines will be prepared for approval of the Federal-Provincial-Territorial Committee on Drinking Water. The streamlined process also includes measures already being implemented to accelerate the approval process. These measures focus on the defining of milestones and targets for all guidelines being assessed, development and implementation of standard operating procedures and best practices, ongoing communication between committee members to ensure early identification and resolution of concerns, and approvals of guidelines outside of regularly scheduled committee meetings. Health Canada will monitor this process and propose changes, if necessary, to ensure timely development and approval of guidelines. In addition, the status of guidelines under development, including reasons for any delays, such as new information (scientific, technological) or the need to develop and apply new methodology in the risk assessment, will be posted on the Health Canada Web site.

Recommendation	Department's response
4.31 Health Canada should produce and implement a work plan to address the backlog of about 50 drinking water guidelines that may need to be updated to reflect current science, clearly indicating which guidelines are to be reviewed, their priority ranking, revision targets, and related timelines. **(4.27–4.30)**	In 2004, Health Canada completed a comprehensive review of all the Guidelines for Canadian Drinking Water Quality, regardless of the age of the guidelines and including those developed over 15 years ago (referred to as backlog). This process has identified the existing guidelines requiring revision, and priorities for developing new and existing guidelines will be defined based on risk to public health, rather than on the age of a guideline. This comprehensive review will be conducted biennially to identify guidelines to be revised. Over half of the guidelines older than 15 years have been reaffirmed, as they are protective of human health. The list of reaffirmed guidelines will be posted on the Department's Web site, along with a list of guidelines that are candidates for revision. The remaining guidelines older than 15 years and other more recent guidelines are either scheduled for revision in the current work plan or will be considered for revision in a multi-year work plan to be developed and approved by the Federal-Provincial-Territorial Committee on Drinking Water.
Federal compliance with the Guidelines for Canadian Drinking Water Quality	
4.46 Health Canada should finalize and issue to all deputy heads, the guidance it has developed for providing safe drinking water in areas of federal jurisdiction. It should also update the guidance as needed and promote its use by federal organizations. **(4.43–4.45)**	The document *Guidance for Providing Safe Drinking Water in Areas of Federal Jurisdiction* was finalized and approved by the Interdepartmental Working Group on Drinking Water in June 2005, after consultations within each of the departments involved. The guidance document will be posted on the Health Canada Web site, and Health Canada's Deputy Minister will inform all deputy heads of the posting of the document. The Department will review and update the guidance document on a periodic basis, in consultation with the Interdepartmental Working Group. Health Canada and the co-chairs of the Interdepartmental Working Group will collaborate with the Treasury Board on adoption of the guidance document as per Recommendation 4.47.
4.47 The Treasury Board of Canada Secretariat, through the National Joint Council, should adopt the guidance for providing safe drinking water in areas of federal jurisdiction, as a requirement under the Sanitation Directive. **(4.43–4.45)**	When the National Joint Council opens the directive for renegotiation, the Treasury Board Secretariat will table wording recommending the guide be entrenched in the Sanitation Directive.

Recommendation	Department's response
4.53 Health Canada should take measures to clearly assure Canadians that potable water on aircraft is safe on a continuing basis, including recommencing routine inspections. **(4.52)**	Health Canada has had ongoing negotiations with airline industry for the last four years. The industry, represented by the Air Transport Association of Canada, has stated it is unwilling to pay for inspections by Health Canada. The Department will continue to work with the airlines to bring them into Health Canada's voluntary, cost-recovered inspection program. Health Canada will continue to inspect aircraft in the case of a complaint, emergency, or other event where there is evidence of a public health risk. The Department will examine funding options to ensure that the airline industry is subject to routine potable water inspections, taking into account inequities that may be incurred with other conveyances that already pay to participate in the voluntary, cost-recovered program.
4.55 Health Canada should revise the Potable Water Regulations for Common Carriers to include reference to the Guidelines for Canadian Drinking Water Quality, a clear definition for ancillary services, and more appropriate penalties for non-compliance. **(4.54)**	Health Canada acknowledges the need for updated legislation to address public health risks on conveyances, and is proposing a more comprehensive approach. A new comprehensive regulation for conveyances and their ancillary services (to replace the Potable Water Regulations for Common Carriers) will address penalties, definitions, and referencing of the Guidelines for Canadian Drinking Water Quality. It will also address risks associated with potable water as well as food, air quality, and general sanitation. This regulation would support Health Canada's commitments under the new *Quarantine Act* and the recently revised International Health Regulations (World Health Organization).
Status of the Federal Water Framework	
4.61 Environment Canada, in collaboration with other federal departments and agencies, should establish clear next steps on what the Federal Water Framework will be used for, particularly in relation to its five ultimate outcomes. **(4.56–4.60)**	In September 2004, the Minister of the Environment launched a process to develop a Competitiveness and Environmental Sustainability Framework for Canada (CESF). The purpose of the Framework is to attain the highest level of environmental quality as a means to enhance the health and safety of Canadians, preserve our natural environment, and advance our long-term competitiveness. The Federal Water Framework will help to reaffirm federal water policy priorities through the CESF. Some 19 federal departments completed the water framework task to describe their activities along five ultimate outcomes. The Water Framework serves as a tool to assist in identifying strengths and gaps in the departments' activities to address a full spectrum of water issues. Environment

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<p>Canada will continue to promote the intent of the framework for priority setting and integrating water-related activities across the government.</p>
<p>As key next steps, outcomes of the Federal Water Framework will be integrated into the broader CESF along the following lines:</p>
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<p>The primary strategies for achieving the outcomes of the Federal Water Framework will be used in developing elements of the CESF related to water. A round-table discussion on water through the Deputy Ministers' Policy Committee on Environment and Sustainability will help to reaffirm federal water priorities and align water-related activities across mandates with the CESF. This round-table discussion and the above-noted alignments are planned for the fall of 2005.</p>
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Report of the
Commissioner of the Environment and Sustainable Development
to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the

Commissioner of the Environment and Sustainable Development

to the House of Commons

Chapter 5

Drinking Water in First Nations Communities

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

5

Drinking Water in First Nations Communities

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

Safety of First Nations drinking water 5
Focus of the audit 7

Observations and Recommendations 8

Initiatives have not substantially reduced the health and safety risks 8

Governing framework 9

Regulatory gap for drinking water on reserves 9

Program management 13

Implementation of administrative guidelines is inconsistent 13
Limited evidence that water systems meet all applicable codes and standards 15
Water testing is inconsistent 16
Support and capacity development is inadequate 17

Reporting to Parliament 24

Parliament is not yet receiving a complete picture 24

Conclusion 26

About the Audit 28

Appendix

List of recommendations 30

Drinking Water in First Nations Communities

Main Points

What we examined

Indian and Northern Affairs Canada (INAC) and Health Canada provide funding and support to assist First Nations in making drinking water available to their communities. INAC covers the costs of designing, constructing, and repairing water systems as well as most operation and maintenance costs. Health Canada supports First Nations in the monitoring and testing of tap water to demonstrate that it is safe for drinking. Through funding arrangements, First Nations are responsible for the construction, upgrade, and day-to-day management of water systems. We examined whether the programs and funding of both departments have helped First Nations communities provide residents with access to drinking water comparable with that of other Canadians living in communities of a similar size and location. We visited six First Nations communities during this audit.

We also looked at how well the First Nations Water Management Strategy is being implemented. This five-year strategy was introduced in 2003 to substantially improve the quality and safety of drinking water on reserves.

Why it's important

Access to safe drinking water is vital to the health of all Canadians, including the approximately half million people living in some 600 First Nations. In 1995, Health Canada and INAC estimated that one quarter of the water systems in First Nations communities posed potential health and safety risks to the people they served. In 2001, INAC found a significant risk to the quality or safety of drinking water in three quarters of the systems. Between 1995 and 2003, the federal government spent about $1.9 billion to help First Nations communities provide safe drinking water and wastewater services. In 2003, the government made drinking water safety in First Nations communities a priority and approved a budget of $600 million over five years for the First Nations Water Management Strategy.

What we found

- When it comes to the safety of drinking water, residents of First Nations communities do not benefit from a level of protection comparable to that of people who live off reserves. This is partly because there are no laws and regulations governing the provision of drinking water in First Nations communities, unlike other communities. INAC and Health Canada attempt to ensure access to safe drinking water in First Nations communities through their policies, administrative guidelines, and funding arrangements with First Nations. This approach does not cover all the elements that would be found in a regulatory regime for drinking water, and it is not implemented consistently.

- Despite the hundreds of millions in federal funds invested, a significant proportion of drinking water systems in First Nations communities continue to deliver drinking water whose quality or safety is at risk. Although access to drinking water has improved, the design, construction, operation, and maintenance of many water systems is still deficient. Moreover, to a significant extent, the success of the First Nations Water Management Strategy depends on INAC and Health Canada addressing the management weaknesses we have noted.
- The technical help available to First Nations to support and develop their capacity to deliver safe drinking water is fragmented. Given that most First Nations communities have fewer than 500 residents, and that providing drinking water has become more complex, the development of institutions that can provide ongoing technical support is critical to a continuing supply of safe drinking water for these communities.

The departments have responded. Indian and Northern Affairs Canada and Health Canada have fully accepted all the recommendations, except for the one on implementation of a regulatory regime. Instead, the departments have stated that they will fully explore, in consultation with First Nations, the options and feasibility of a regulatory regime. The departments' responses are included in the chapter.

Introduction

5.1 The production and delivery of safe drinking water is often taken for granted, until problems occur, at times with tragic consequences. After incidents in Walkerton, Ontario in 2000 and North Battleford, Saskatchewan in 2001, improving the safety of drinking water has become a priority throughout Canada, including First Nations communities. The safety of drinking water involves complex technical, human, financial, and regulatory factors. In First Nations communities, the relationship between the federal government and First Nations and the unique situation of each First Nation add to this complexity.

First Nation—A community of Indian people living on one or more reserves, and off reserves. The term "First Nation" has the same meaning as "Band", as defined in the *Indian Act*.

First Nations community—A group of First Nations people living on a reserve.

Reserve—As defined in the *Indian Act*, a tract of land, the title of which is vested in Her Majesty, set apart for the use and benefit of a Band (First Nation).

5.2 Federal programs and funding related to drinking water on reserves are based on government policy adopted in the 1960s and 1970s, and parliamentary appropriations. The objective of the government policy is to ensure that people living on reserves attain a comparable level of health and have access to water facilities comparable with other Canadians living in communities of a similar size and location.

5.3 There are two main departments responsible for the implementation of the policy: Indian and Northern Affairs Canada (INAC) and Health Canada. In addition, Public Works and Government Services Canada (PWGSC) provides technical services to INAC under a memorandum of understanding.

5.4 **Indian and Northern Affairs Canada.** Water systems in First Nations communities are funded as part of the Department's Capital Facilities and Maintenance Program. Through funding arrangements, this program transfers funds to First Nations to help them provide community services, such as water and sewage, schools, roads, fire protection, and community buildings. The program's objective is to improve living conditions on reserves.

5.5 INAC sets priorities on the allocation of funds and defines the conditions for their use. For drinking water systems on reserves, such as water treatment plants, water intakes, pipes, and water trucks, the program covers the full costs of design, construction, acquisition, upgrading, and major repairs for water services to residential and community buildings. Individual wells and businesses are not eligible for assistance; nor are water systems servicing fewer than five houses. INAC approves projects and funding, in accordance with applicable departmental guidelines, or seeks Treasury Board approval for projects over $15 million. It also monitors compliance with funding conditions.

Water quality must meet the Guidelines for Canadian Drinking Water Quality, while the level of water distribution services funded by INAC depends on the housing density in a community. The service level can vary from high-pressure piped water to delivery of water by trucks to cisterns.

5.6 The program also provides funding to First Nations for the operation and maintenance of eligible water systems. INAC's policy is to fund 80 percent of the estimated operation and maintenance costs for a particular water system. First Nations are expected to collect the remaining 20 percent through user fees or other sources. The Department also funds First Nations for training and certification of operators. In addition, the program covers 80 percent of the costs when a First Nation buys its drinking water from a neighbouring municipality.

Tribal council—An organization established by a number of First Nations with common interests who voluntarily join together to provide advisory or program services to member First Nations.

5.7 INAC also provides funding to tribal councils, from another program, to make technical support available to member First Nations for the planning, design, construction, and operation and maintenance of community infrastructure.

5.8 **Health Canada.** In First Nations communities, Health Canada acts as a surveillance agency for drinking water and as a public health agency. Under the Drinking Water Safety Program, Health Canada funds First Nations or tribal councils, or contracts with individuals, to sample and test tap water to provide a final check on the overall safety of the drinking water. The Department defines funding conditions in its contribution arrangements and monitors compliance with the Treasury Board-approved terms and conditions of the program. The objective of the program is to ensure that drinking water on reserves located south of 60° is monitored as per the Guidelines for Canadian Drinking Water Quality. The territorial governments are responsible for drinking water north of 60°.

5.9 Most First Nations communities are funded by Health Canada to sample and test their drinking water. Departmental employees support these activities by providing training and quality assurance, reviewing and interpreting results, and providing advice and recommendations. In some communities, departmental employees carry out tests. In other communities, the responsibility for monitoring drinking water and for other activities normally carried out by departmental employees has been fully transferred to First Nations. The Drinking Water Safety Program also provides for training and community-based education on drinking water issues. Health Canada's general responsibilities for public health and safety in First Nations communities support the delivery of this program.

5.10 According to INAC and Health Canada, First Nations are responsible for ensuring that water systems are planned, designed, constructed, operated, and maintained in accordance with the program and financial conditions of their funding arrangements. The day-to-day responsibility for operating and maintaining water systems, including water testing, rests with individual First Nations under these arrangements. Exhibit 5.1 shows some of the challenges in providing safe drinking water in First Nations communities, including some First Nations views on this matter.

Exhibit 5.1 **Challenges in providing safe drinking water in First Nations communities**

Location. Many First Nations are located on the Canadian Shield, or other difficult terrain, making it technically difficult and costly to provide water services. Some reserves are isolated and can be accessed by roads only in winter; some have limited access to electricity or other forms of energy. Water sources are often located off reserves, and it is difficult for First Nations to protect them.

Accountability. Federal departments set requirements that make First Nations responsible for providing day-to-day drinking water. It is not clear who is ultimately accountable for the safety of drinking water.

Costs and financing. Providing drinking water is costly, and there is limited economy of scale. Water facilities serve a small population. Poor economic conditions limit First Nations' access to financing for water projects and to regular revenues to cover a portion of operation and maintenance costs. This creates a built-in shortfall in funding available for operation and maintenance.

Operators. It is difficult to find and retain qualified operators. Many operators do not have the qualifications required. As most First Nations communities are small, there are few qualified candidates. Operators have limited access to outside support and training.

Technical standards. It is not clear which standards are applicable. Provincial guidelines and regulations on drinking water are to be applied except when less stringent than federal standards. Support to help meet standards and enforcement mechanisms is limited.

Population growth. On-reserve population is estimated to increase by 230,000 people between 2004 and 2021. It is difficult to estimate population growth and economic development in each community to plan water systems that can meet drinking water needs for 10 to 20 years.

Safety of First Nations drinking water

5.11 According to data collected by Indian and Northern Affairs Canada, there are about 460,000 First Nations people living on reserves spread across some 600 First Nations (2004 figures). Of these, about 78,000 First Nations people live in about 90 isolated communities without year-round road access.

5.12 In 1995, an assessment of drinking water systems by Health Canada and Indian and Northern Affairs Canada, based on available data on the quality of drinking water, found that about 25 percent of water systems on reserves posed potential health and safety risks to the people they served. The federal government spent about $1.9 billion between 1995 and 2003 on water and wastewater systems on reserves, most of it on drinking water. A portion of this spending was in direct response to the 1995 assessment.

5.13 Another assessment carried out by INAC in 2001, based on an on-site inspection of all water systems in First Nations communities, found a significant risk to the quality or the safety of drinking water in three quarters of these systems. In response to the 2001 assessment and the results of the Walkerton Inquiry, the federal government introduced the First Nations Water Management Strategy in 2003 with a budget of $600 million over five years. The main objective of the strategy is to substantially improve the quality and safety of drinking water in First Nations within a five-year period.

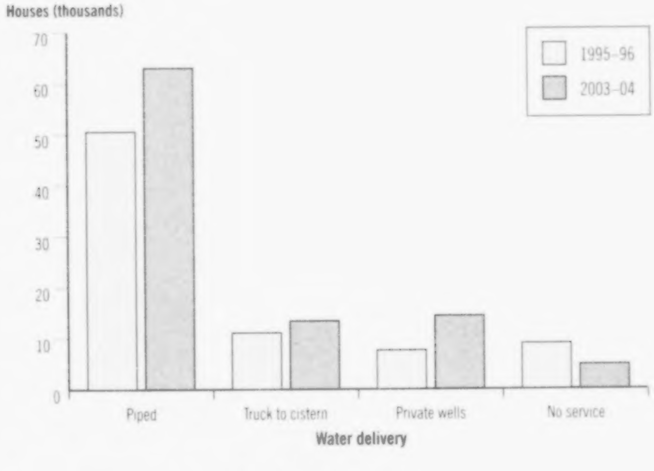
Did you know?

The number of drinking water systems on reserves in 2003–04: **739**

The estimated replacement value of the systems in 2004: **$1.4 billion**

5.14 As a result of efforts from both departments and First Nations, and the significant investment in federal funds, access to drinking water in First Nations communities has improved. Exhibit 5.2 shows the changes in access between 1995 and 2004 by type of delivery services.

Exhibit 5.2 **Access to drinking water in First Nations communities has improved since 1995**



Source: Indian and Northern Affairs Canada (unaudited)

5.15 At the time of the audit, INAC and Health Canada were into the second year of implementing the strategy, and work was under way on all its elements. INAC had drafted policies and standards, sent communication material to chiefs and councils about the strategy and drinking water issues, increased funding for operation and maintenance of water systems, increased training available to water system operators, and started addressing water systems identified in 2001 as presenting a significant risk. The work on these systems was completed in some cases. Health Canada had increased its funding and training for water testing and put in place an information system in most regions. Finally, both departments had started discussions to improve the co-ordination of their activities.

Focus of the audit

5.16 Our audit focussed on the activities of Indian and Northern Affairs Canada and Health Canada related to the safety of drinking water in First Nations communities, including the technical services provided to INAC by PWGSC, and the results of those activities. The audit covered primarily the programs and funding specifically developed to support water systems and monitor water quality. Through community visits and consultations, we sought the views of First Nations and their organizations on the matters included in the audit.

5.17 The objectives of the audit were to determine whether

- the programs and funding of INAC and Health Canada provide First Nations communities with access to safe drinking water comparable with that of communities of a similar size and location;
- sufficient and appropriate information on the quality of the drinking water is being reported by Health Canada to First Nations, INAC, and other appropriate parties; and
- sufficient and appropriate information is being collected by INAC and Health Canada to ensure that the government is able to report to Parliament on the results of the First Nations Water Management Strategy.

Further details on the audit objectives, scope, approach, and criteria are included at the end of the chapter in **About the Audit**.

Observations and Recommendations

Initiatives have not substantially reduced the health and safety risks

5.18 Following the 1995 assessment of drinking water in First Nations communities, which found that about 25 percent of the drinking water systems posed potential health and safety risks to the people they served, Indian and Northern Affairs Canada (INAC) undertook a number of activities. These included the following:

- INAC reallocated about $370 million from its capital program and other programs to fund the construction, upgrade, and repair of water (and wastewater) systems.
- The Department also used funds from specific-purpose initiatives to accelerate the construction and upgrading of water (and wastewater) systems on reserves. For instance, since 1998 it has had access to $50 million a year under the Gathering Strength water and sewer initiative.
- The Department issued new administrative guidelines to staff on the service level for drinking water and on the operation and maintenance of water systems, and it modified the conditions in funding arrangements with First Nations to clarify accountability.
- INAC provided additional support for the training of water system operators.

5.19 The main objective of most of these activities was to address all situations where drinking water was considered to pose potential health and safety risks to people. However, there was no comprehensive plan with timeframes and resources for dealing with these situations, and the impact of the additional funding was not effectively tracked. Many water projects were funded from various sources of funds under different initiatives. INAC was not able to establish a clear link between projects and initiatives and its overall goal of addressing all situations posing risks. Therefore, the results of each initiative cannot be demonstrated.

5.20 Many water systems have been built, upgraded, or repaired following the 1995 assessment. However, INAC has not addressed all potential risk situations identified in 1995 and cannot demonstrate that the drinking water issues for First Nations who had water systems built, upgraded, or repaired have been resolved. For example, the construction of a new water treatment plant in a First Nations community was completed in 2003, at a cost of about $4 million, but the First Nation has concerns about the water source and the design of the water treatment plant and is not prepared to use it. At the end of our audit, the Department was working with the First Nation to try to resolve these issues.

5.21 In 2001, INAC undertook an on-site assessment of water (and wastewater) systems on reserves. It looked at the performance of water treatment plants, operating practices, operator qualifications, and water quality objectives. It also identified areas of improvement and estimated their cost. The assessment found that in about three quarters of the water systems in First Nations communities there was a significant risk to the quality or the safety of drinking water. Despite the measures taken since 1995 and the hundreds of millions of dollars spent on water systems, the risk level of the drinking water was still substantial.

5.22 In 2003, INAC and Health Canada developed the First Nations Water Management Strategy. The strategy is intended to fix most of the problems identified in the 2001 assessment and substantially improve the quality and safety of drinking water in First Nations communities by 2008. It covers the following seven elements:

- developing comprehensive guidelines, policies, and standards;
- educating on-reserve residents about drinking water issues;
- clarifying roles and responsibilities;
- building and upgrading water systems to standards;
- improving operation and maintenance;
- providing operator training; and
- expanding water testing.

The departments have been trying to address the last five points since 1995.

5.23 The strategy has a budget of $600 million over five years. In addition, the departments will continue to spend funds from their regular program budgets. Over the period, spending by INAC and Health Canada combined is planned to be about $1.8 billion.

Governing framework

Regulatory gap for drinking water on reserves

5.24 In keeping with the government's policy objective, and with its priority on the safety of First Nations drinking water, we expected that funding provided to First Nations would be based on appropriate standards and licensing to help First Nations communities provide residents with access to safe drinking water comparable with that of other Canadians living in communities of a similar size and location.

5.25 However, we found that INAC, Health Canada, and First Nations do not operate under a regulatory regime as most provinces do. Instead, INAC and Health Canada use funding arrangements with First Nations and administrative documents as the means to set and enforce requirements for water quality and safety.

5.26 Although most provinces have legislation and regulations in place for drinking water, both INAC and Health Canada state that provincial jurisdiction over drinking water does not extend to reserves.

5.27 All employers subject to the *Canada Labour Code*, including the federal government, must provide their employees with safe drinking water (see Chapter 4, Safety of Drinking Water: Federal Responsibilities). However, because the *Canada Labour Code* applies only to employees and provincial legislation and regulations are not applied on reserves, residents of First Nations communities do not benefit from the regulatory protection for drinking water available in provinces and to federal employees. The case study below provides an example of the application of federal regulations on reserves.

How federal regulations are applied on reserves

Under the *Canada Labour Code* and the Occupational Safety and Health Regulations, every federally regulated employer has to provide its employees with drinking water that meets the standards set out in the Guidelines for Canadian Drinking Water Quality. Federal employees working in First Nations communities are covered by these regulations.

We found that in 2002 Health Canada installed small water treatment units in nursing clinics and health stations in at least 20 First Nations communities that were regularly experiencing drinking water safety problems. This was a result of Human Resources and Development Canada intervention to ensure that federal employees working in these facilities would be provided with safe drinking water as prescribed under the *Canada Labour Code*.

In order to maintain water safety and meet its obligations, Health Canada carries out regular tests of water quality. As of January 2005, the tests indicated that water being produced by some of these units was not safe for drinking and the Department was taking action to resolve these issues.

5.28 INAC attempts to fill this "regulatory gap" by referring to provincial legislation and regulations in its policies and administrative guidelines, and in funding arrangements with First Nations. However, we found that important elements covered in most provincial regulatory regimes are missing in the guidelines and funding arrangements. These include the approval and licensing of water treatment plants, ongoing monitoring, public reporting requirements, and compliance and enforcement mechanisms. This means, for example, that where a province requires water treatment plants to be licensed or certified, the plants located in First Nations communities are not.

5.29 We also found that INAC administrative guidelines are not consistently implemented. These guidelines require, among other things, that new water systems meet provincial regulations, except where they are less stringent than those of the federal government. Department officials told us that they do not feel obliged to comply fully with or enforce provincial regulations. They also stated that they do not have the human resources and the capacity that the provinces have to support and enforce them.

5.30 As part of the First Nations Water Management Strategy, INAC is drafting new administrative guidelines on drinking water systems in First Nations communities. We reviewed this document and believe that it falls short of providing an effective regulatory regime because it applies only to INAC officials. Further, it will not be enforceable through legislation or regulations, and how it will apply to First Nations remains unclear.

5.31 INAC also uses funding arrangements with First Nations to define drinking water requirements. However, the wording of the arrangements is general and does not specifically refer to water systems. In 2001, in a submission to the Walkerton Inquiry, the Chiefs of Ontario stated: "First Nations, their consultants and federal officials are left to discern the applicable standards from vague and conflicting language in funding conditions, guidelines and manuals." This situation had not changed significantly at the time of our audit.

5.32 Funding arrangements between INAC and First Nations require First Nations to adhere to all applicable codes and standards and preserve health and safety. However, it is not clear whether and how the First Nations are to incorporate all the elements found in provincial legislation and regulations in the management of their drinking water.

5.33 There is no legislation requiring that drinking water quality and safety in First Nations communities be monitored. Health Canada states that it has no statutory- or regulatory-based enforcement or inspection powers for water quality on reserves. Therefore, departmental staff are not legally empowered to ensure that all required tests are carried out. Further, First Nations are not legally empowered to test their drinking water. Consequently, residents in

First Nations communities do not benefit from testing practices comparable with those in other communities.

5.34 Under the Drinking Water Safety Program, Health Canada signs funding arrangements with most First Nations, or contracts with individuals, to test drinking water as recommended under the Guidelines for Canadian Drinking Water Quality. However, under these arrangements, the only consequence for failing to carry out tests is that funds are withheld.

5.35 In our view, until a regulatory regime comparable with that in provinces is in place, INAC and Health Canada cannot ensure that First Nations people living on reserves have continuing access to safe drinking water.

5.36 **Recommendation.** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should develop and implement a regulatory regime for drinking water in First Nations communities. This regime should be comparable with that in provinces and designed to protect the health and safety of First Nations people. As a minimum, this regime should deal with roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements.

Indian and Northern Affairs Canada's response. Indian and Northern Affairs Canada will continue to implement the First Nations Water Management Strategy aimed at improving program elements—specifically, roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will

- fully explore the options and feasibility of a regulatory regime with all other stakeholders for drinking water on reserve. All aspects of a proposed regime will be assessed, including establishing new legislation, regulations, and enforcement mechanisms. An action plan for the implementation of the chosen option will be produced by September 2006.

- continue to develop and implement mechanisms aimed at ensuring compliance with the required standards regarding drinking water quality until a regulatory regime is in place. This will include finalizing the *Protocols for Safe Drinking Water in First Nations Communities* recently developed under the

First Nations Water Management Strategy, which includes key elements covered in a provincial regulatory regime and which will provide clear direction on how First Nations are to incorporate these elements in the management of their drinking water by April 2006; and

- continue to develop and implement amendments to funding arrangements in line with the codes and standards contained in the above-noted protocol document, to strengthen drinking water management practices consistent with provincial regulatory requirements by April 2007.

Health Canada's response. The political and governance issues in First Nations communities are very complex. First Nations have identified the need for self-government as a priority. Health Canada and Indian and Northern Affairs Canada will assess the feasibility of this recommendation and options for implementation, in consultation with First Nations stakeholders. In the interim, Health Canada will improve program delivery in the areas identified by the auditors as a strength of provincial legislation, specifically in the areas of roles and responsibilities, water quality requirements, technical requirements, compliance and enforcement, and public reporting requirements. These actions will be completed by December 2006.

Program management

Implementation of administrative guidelines is inconsistent

5.37 To test INAC's management systems, we examined 28 water projects of 20 First Nations in three regions. We expected that the Department would comply with the administrative guidelines issued to its staff and ensure that funds transferred to First Nations for these projects would be used for their intended purpose.

5.38 We found that the levels of services to be provided are interpreted differently from one region and First Nation to another. For example, in one region, water delivery by trucks is not considered an acceptable level of service and is not explored as an option. In other regions, it is widely used in communities where housing density is low.

5.39 There are cases where INAC does not comply with the definition of eligible users: residential and community buildings. According to departmental guidelines, all other users should normally pay the full cost of their water. We found cases where water systems funded by INAC are being used to provide water to businesses at no extra cost.

5.40 Additional costs of water systems are not always justified. INAC guidelines state that the Department is to fund the most cost-effective option, taking into account the estimated construction and operation and maintenance costs over the planned life of a water system. In one case we examined, the option finally approved by INAC was the most expensive over the life of the system, adding $630,000 to the estimated construction costs; compared with the lowest cost option, this represented a 36 percent increase. However, this decision was not based on technical considerations, as required under INAC guidelines, but on the First Nation wanting a treatment process with a higher level of protection against giardia and cryptosporidium. The case study below provides another example where INAC spent a relatively large amount of money to respond to a health and safety issue without examining different service levels or innovative solutions.

A costly response to a health and safety issue

In 1995, a First Nation was identified as not having access to safe drinking water. In 1997, discussions began between Indian and Northern Affairs Canada (INAC) and the First Nation on a water project to provide chlorinated water to five houses on one of its reserves, two houses off the reserve, and five more houses to be built. This reserve was under a boil-water advisory. The initial estimate of the project cost was $520,000.

A review conducted in 1998 by Public Works and Government Services for INAC questioned the project design as it did not meet INAC's guidelines and noted that a more cost-effective option was available. The First Nation was asked to explore the possibility of connecting to a neighbouring First Nation's water system then being built. After discussions, this option was rejected because of concerns over water availability.

In 1999, INAC approved the project essentially as first discussed at a planned cost of $762,000. The project did not include filtration. The construction was substantially completed in 2001. The final costs of the project reached $782,000. At the time of the audit, the reserve was still under an indefinite boil-water advisory for infants and people in poor health due to the absence of filtration. The feasibility of connecting the reserve to a water treatment plant located on another of the First Nation's reserves was also being explored.

5.41 People in some communities still do not have access to running water. While this is not considered acceptable under INAC policies, it is not clear how the administrative guidelines for drinking water help INAC officials reconcile minimum service standards with available funding.

5.42 In one case we examined, a $3 million water treatment plant was built in 1999. Yet, people living in about half of the 500 houses in the community do not have running water, from pipes or cisterns, and some have to haul their water from watering points. Although INAC guidelines state that watering points are temporary, the region's five-year capital plan (to 2009), does not contain a project to service these houses. If the current plan proceeds, about half the population in this community will have received limited benefits from this water treatment plant 10 years after its construction.

5.43 We found that controls in the INAC regions provide assurance that funds transferred to First Nations for the design, construction, or repair of drinking water systems are used for their intended purpose. In the three regions we visited, we examined construction projects that were either in progress or that had been completed. INAC payments for the construction projects were usually made on the basis of progress reports. In one region, controls included the need for First Nations to set aside a separate account for water project funds. However, controls in the regions are not sufficient to ensure compliance with applicable codes and standards.

Codes and standards—Codes are sets of rules, requirements, or criteria expressed in written form (for example, the National Building Code). Standards are rules, requirements, or procedures for an orderly approach to a specific activity. Codes and standards only become law if a government references them in legislation.

Limited evidence that water systems meet all applicable codes and standards

5.44 We expected that INAC would have appropriate management practices to assess, approve, and monitor drinking water projects on reserves and ensure that all funding conditions are met.

5.45 We found that INAC has no comprehensive list of codes and standards applicable to the design and construction of water systems. Codes and standards are set out in various documents, funding arrangements, administrative documents, and project briefs. In these documents, the definitions of codes and standards range from the requirement to meet "all applicable codes and standards" to references to either a general or specific list of codes and standards. It is unclear which definitions are applicable and will be applied to a given project.

5.46 In the projects we examined, INAC's evidence of which codes and standards were complied with varied. The Department did not always receive reports to demonstrate that reviews and inspections of design and construction were carried out and that drinking water projects complied with applicable codes and standards. For example, we found projects where the certificate of completion required by INAC at the end of construction was not provided. When provided, completion reports varied in content and in the levels of assurance on compliance with codes and standards.

5.47 This weakness can have consequences for the quality or safety of drinking water. For example, we found some water systems with deficiencies attributable to faulty design or construction. These deficiencies can result in risks to operator safety, failure to achieve the treatment performance, or inability to produce the expected water quantity.

5.48 INAC's 2001 assessment of water systems also found many design or construction faults. These explain a portion of the 75 percent of water systems that were classified as risky. Moreover, correcting these problems can be complex and costly. In one region, for example, INAC will fund 40 detailed assessments of water systems to find out the exact nature of the problems and identify potential solutions. In one case we examined, correcting a risky situation in a community of about 350 people will involve the construction of a new water system at the cost of about $6 million. The new system will also meet the community's future drinking water needs.

5.49 Under the First Nations Water Management Strategy, INAC is committed to ensuring that all water systems on reserves are built to standards. It has developed draft administrative guidelines to define its own requirements. In their current form, these guidelines clarify some requirements, but it is not clear how First Nations will implement them.

Water testing is inconsistent

Testing recommended for water systems

The Guidelines for Canadian Drinking Water Quality recommend that public water distribution systems be tested at least four times per month at regular intervals, for microbiological characteristics, and semi-annually for chemical substances.

5.50 Drinking water needs to be tested regularly as a final check on the safety of the supply chain for drinking water and to protect public health. We expected that Health Canada would have a plan in place to ensure that all drinking water systems in First Nations communities would be tested in accordance with the Guidelines for Canadian Drinking Water Quality, that information on water quality would be shared with appropriate parties, and that timely and appropriate action would be taken when drinking water poses health risks.

5.51 Health Canada files we examined indicate that regular tests of drinking water are not carried out in most First Nations. Although Health Canada's overall target is to reach the testing frequency recommended in the Guidelines for Canadian Drinking Water Quality by 2008, we found that the Department has no comprehensive plan, with specific target dates, to meet this overall target. In addition, it does not ensure that First Nations test their drinking water as required in the funding arrangements, contracts, and Health Canada procedure manual. In some cases, First Nations failed to carry out water tests for periods as long as seven months. Although Health Canada does not provide funds when tests are not carried out, the absence of tests hampers Health Canada's and First Nations' ability to detect potential water quality problems and make timely and informed decisions to deal with these problems. Further, test results are not available for use by INAC and First Nations as a component of quality control for drinking water. In situations where the drinking water quality is poor, Health Canada employees provide additional support to First Nations communities.

5.52 In the regions we visited, Health Canada does not yet systematically record testing results in its information system, which, in one region, has been in place for four years. Although data were incomplete, there was no plan to identify data problems and correct them. Further, we found that there was no evidence in the information system that quality control requirements for water testing were followed, and officials could not explain the intended purpose of this system and how it is to be used for program management.

5.53 Health Canada considers that it has only an advisory role to First Nations when tests show that the drinking water is not safe to drink. At times, the Department may recommend that a First Nation issue a boil-water advisory to users. According to Health Canada, First Nations have the authority to put in place and lift advisories, and they have the responsibility, with assistance from INAC, Health Canada, tribal councils, and other support organizations, to correct the underlying causes. We found that some advisories have been in place for many years. For instance, a community of over 1,000 people has been under a boil-water advisory since August 2001 due to an inadequate level of chlorine in its distribution system. We also found that responsibilities to correct the causes of the advisories are not always understood. In one community, a section of the community had been under a boil-water advisory for over three years before the corrective actions were taken and the advisory lifted.

Support and capacity development is inadequate

5.54 We expected that INAC would have appropriate management practices in place to monitor operation and maintenance of First Nations water systems to ensure that drinking water meets standards and that funding is used for the intended purpose. We found that INAC's programs are limited in scope and that the technical help available to First Nations to support and develop their capacity to provide safe drinking water is fragmented. We identified weaknesses in three main areas: operators, funding, and information and monitoring.

5.55 **Operators.** Most water treatment plant operators in First Nations communities do not possess the knowledge and skills required to operate their plant safely. The 2001 assessment found that about 10 percent of the operators met the certification requirements of their respective province. Under the First Nations Water Management Strategy, INAC introduced a requirement that all on-reserve operators be certified to the level of complexity of their water treatment plant, in accordance with the rules applicable in their province. The target is to certify all operators or ensure that uncertified operators are directly supervised by a certified operator by 2006.

5.56 In the regions we visited, INAC transfers funds to First Nations for classroom instruction and education upgrades to help operators meet certification requirements. INAC's statistics indicate that at the end of March 2005, about 40 percent of the operators were certified. However, for one region included in these statistics, we found that although many of the operators were trained and had passed exams, they were not certified. In addition, the statistics do not indicate if the operators are certified to the level of complexity of their plants. Further, as provincial certification and training requirements are becoming more stringent, many First Nations operators have difficulty meeting educational and experience requirements. In addition, for more complex water treatment plants, a minimum number of years of experience operating such a facility under appropriate supervision is required before certification. In our view, there is a high probability that the certification target will not be met. In one region, INAC is considering other options to ensure proper plant operation, such as the grouping of many systems under the supervision of one or more trained operators.

5.57 The main support available to operators comes from the Circuit Rider Training Program funded by INAC in all regions. Under this program, experienced operators provide hands-on, on-site training on a cyclical basis over a period of 12–24 months to help resident operators run their own water system. Assistance is also available in case of emergency. In 2001, about 65 percent of operators on reserves had received this type of training. INAC officials told us that this program has been a success and that the knowledge and skills of operators have improved. However, the support and training are not mandatory or accessible to all First Nations. We also found that INAC does not require a training plan to be in place. We noted that a lot of the trainers' time is spent resolving immediate technical problems rather than providing training.

5.58 There is other support available to First Nations. INAC funds tribal councils and, in some regions, other First Nations organizations, to make a range of technical services available to First Nations. However, it does not require that a tribal council provide assistance for drinking water. Tribal councils and their member First Nations determine priority areas and the nature and extent of support made available. As not all First Nations are members of a tribal council, support and capacity development is fragmented and not available to all First Nations. Moreover, the Department has limited information on whether the support available for drinking water meets First Nations needs and results in safe drinking water. At least two provinces have created corporations to provide a full range of services to water providers. These models could be explored for First Nations.

5.59 **Funding.** INAC does not use a consistent method to fund First Nations for the operation and maintenance (O&M) of their water systems. Its policy is to allocate O&M funds on the basis of a formula. The amount allocated to each First Nation should cover 80 percent of the estimated O&M costs of drinking water systems. However, we found that the formula had not been updated for many years. In some regions, the Department does not use the formula and provides some First Nations with 80 percent of their actual O&M costs if they can provide sufficient evidence of paying these costs.

5.60 Under the First Nations Water Management Strategy, INAC is implementing a new method to estimate O&M costs and allocate funds. This method takes into account the characteristics of each water system, and as a result, many First Nations are eligible for additional funding. However, it is not clear whether this method will apply to all First Nations or if actual costs will continue to be paid in some cases.

5.61 INAC does not know whether all funds for operation and maintenance are used for this purpose. The Department provides First Nations about $45 million annually to support the operation and maintenance of their water systems (including wastewater). Under the applicable funding conditions, First Nations have the flexibility to use O&M funds for other purposes, and INAC has limited assurance that they are used for the purpose intended. For the duration of the First Nations Water Management Strategy, INAC has raised O&M funding by over 50 percent, to about $75 million. The additional funds are transferred to First Nations under different conditions and cannot be used for purposes other than the operation and maintenance of water systems. INAC plans to request a permanent increase in its capital budget to provide First Nations with a stable O&M funding level. It is not clear whether the Department will make funding conditions uniform as part of this process and how it will obtain assurance that all funds are used as intended.

5.62 Other issues related to operation and maintenance funding of water systems remain. Under INAC's O&M guidelines, First Nations are expected to cover 20 percent of the O&M costs of water systems through user fees or other sources. In practice, according to INAC information, few First Nations collect user fees. Moreover, INAC ignores whether First Nations have other resources to meet this requirement and has no means to enforce it.

5.63 **Information and monitoring.** INAC has limited information on whether First Nations meet the conditions of their funding arrangements and whether its programs and funding result in safe drinking water. To monitor the state of water systems, INAC requires First Nations to provide information annually on their O&M plans and activities, and the results of an inspection of the condition of their water systems every three to five years.

5.64 We found that INAC does not know whether regular maintenance identified by First Nations was completed or whether urgent maintenance or repair projects are needed. Some reports requested by INAC are not provided by all First Nations, even though they would be useful to both INAC and the First Nations. For instance, First Nations are supposed to have maintenance management plans in place for their water systems. However, INAC does not require evidence that these plans are in place and used. In addition, regions are supposed to ensure that annual maintenance inspections are completed. These are not being done systematically. Moreover, periodic inspections are not always carried out when due, and some inspection reports provided by First Nations contain poor-quality information. As a result, the information system in place to record the results of water system inspections is not reliable.

5.65 When deficiencies in a water system are noted in a report to INAC, First Nations, through their funding arrangements, are responsible for correcting them with assistance from tribal councils and other organizations. However, there is no effective means to inform INAC that the deficiencies are corrected, and the Department has limited means to ensure that a First Nation has addressed the deficiencies. INAC cannot withdraw O&M funding because drinking water is an essential service.

5.66 Under the current reporting mechanisms, INAC focusses on the condition of the water systems. Before undertaking the assessment of water systems in 2001, INAC had limited information on the safety of First Nations drinking water. We found that the Department still does not have adequate information on drinking water quality or safety. The Department has undertaken a review of its information needs and data collection processes for drinking water. It is also planning to implement annual performance inspections of water systems starting in 2005.

5.67 Health Canada and INAC have set out seven elements in the First Nations Water Management Strategy to substantially improve the quality and safety of drinking water in First Nations communities by 2008. However, as providing safe drinking water has become more complex and as most First Nations communities have fewer than 500 residents, access to ongoing technical support is critical in supplying residents of First Nations communities with safe drinking water. There are a number of challenges to the successful implementation of the strategy. In our view, unless these challenges and support needs are fully addressed, it is unlikely that the strategy will improve the quality and safety of First Nations drinking water on a continuing basis.

5.68 **Recommendation.** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should

- clarify the codes and standards applicable to the design and construction of drinking water systems;
- consider such factors as the quality of water sources, local capacity, potential for innovation, and cost effectiveness when approving funding for water systems; and
- develop mechanisms to obtain assurance that all required factors are taken into account when approving drinking water projects and that codes and standards are complied with.

Indian and Northern Affairs Canada's response. Work is well under way to create codes, standards, and protocols applicable to the design, construction, and commissioning of drinking water systems under the First Nations Water Management Strategy. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will

- review Indian and Northern Affairs Canada's *Action Framework for Safe, Clean Drinking Water and Effective Wastewater Treatment for First Nations*, and related protocols regarding the design and construction of drinking water systems, to ensure the codes and standards are clear, understandable, and consistently applied by April 2006. These documents will also include a list of all relevant codes and requirements that First Nations drinking water systems must meet;
- review the project review process, as currently documented in the *National Framework for the Review of Water and Wastewater Systems in First Nations Communities*, including the list of factors that are to be considered when approving funding for water systems, such

as the quality of water sources, local capacity, potential for innovation, and cost effectiveness by September 2006; and

- strengthen mechanisms to verify that all codes and standards have been complied with, including a checklist of all required factors that must be taken into account when approving and commissioning drinking water systems by April 2006.

Health Canada's response. Health Canada agrees with this recommendation. In collaboration with Environment Canada, Indian and Northern Affairs Canada, and Public Works and Government Services Canada, Health Canada developed the *National Framework for the Review of Water and Wastewater Systems in First Nations Communities*, which was distributed to regional offices in March 2005. This document delineates the role of each department in the integrated review process for drinking water and wastewater project proposals in First Nations communities. Health Canada's role in the review process is to review the projects from a public health perspective. The Department is currently developing a set of guidelines to provide additional assistance to Health Canada reviewers in this regard. These actions will be completed by May 2006.

Health Canada will continue to work together with Indian and Northern Affairs Canada, in consultation with First Nations, on clarifying codes and standards and developing mechanisms to obtain assurance on the approval of drinking water projects and compliance with codes and standards.

5.69 **Recommendation.** Health Canada, in consultation with Indian and Northern Affairs Canada and First Nations, should ensure that

- all drinking water tests recommended under the Guidelines for Canadian Drinking Water Quality are being carried out;
- test results are properly recorded and relevant information is shared with appropriate parties;
- situations where drinking water is not safe, or where there is no assurance of drinking water safety, are clearly identified and actions to be taken in each situation are defined; and
- action is taken by responsible parties as required.

Indian and Northern Affairs Canada's response. In collaboration with Health Canada and First Nations, Indian and Northern Affairs Canada will ensure that roles and responsibilities are more clearly defined for the sharing of monitoring and test results, as well as for actions taken following situations where water is found to be unsafe, so that timely actions are taken by all parties to ensure public health and safety. Indian and Northern Affairs Canada, with Health Canada, will

- finalize the Memorandum of Understanding between Indian and Northern Affairs Canada and Health Canada regarding the collection and sharing of information by December 2005;
- clarify and formalize the roles and responsibilities of the Department, First Nations, and Health Canada, as identified in Health Canada's *Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°*, for situations in which drinking water in First Nations communities is not safe or where there is no assurance of water safety, and clearly define actions to be taken by April 2006; and
- develop a communication and follow-up procedure for informing all affected parties of potentially unsafe water by May 2006.

Health Canada's response. Health Canada agrees with this recommendation. The Department has finalized a *Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°*, wherein procedures for recording and sharing test results and identifying and taking action when water is not safe are detailed. The procedure manual will be updated by December 2006 to reflect the recommendations of the audit, in consultation with regional offices, other Health Canada areas and subject matter specialists, other government departments, and First Nations stakeholders.

5.70 **Recommendation.** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should

- assess the capacity and support that First Nations need to deliver safe drinking water in their communities;
- establish the institution or institutions that could consolidate these capacity-building and support functions for all First Nations; and
- define the information that the departments and First Nations need to demonstrate that the drinking water is safe.

Indian and Northern Affairs Canada's response. Indian and Northern Affairs Canada will examine and improve capacity-building and support in First Nations communities for the provision of safe drinking water. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will

- develop and conduct a survey to assess the capacity of First Nations communities to provide safe drinking water by September 2006;
- review, evaluate, and strengthen existing mechanisms for capacity development and support for First Nations communities by June 2006. This will include evaluating options, such as the establishment of new or identification of pre-existing institutions to consolidate capacity-building and support for all First Nations, and the production of an action plan for implementing the recommended option; and
- establish the required information, by December 2006, that the Department and First Nations need to demonstrate that drinking water on reserves is safe. This will be done through implementation of the recently developed annual inspections that evaluate the performance and condition of the systems, as well as the data collected by Health Canada.

Health Canada's response. Health Canada agrees with this recommendation. The Department builds First Nations capacity and provides support to First Nations through the provision of advice and recommendations to First Nations communities and by funding and training community-based monitors of drinking water quality. We have made progress in addressing the provision of support capacity through the First Nations Water Management Strategy. Health Canada will have finalized a national framework for training community-based monitors of drinking water quality by December 2005.

Together with Indian and Northern Affairs Canada and in consultation with First Nations, Health Canada will examine the feasibility of the establishment of an institution or institutions to consolidate capacity building and support functions for all First Nations by June 2006.

Reporting to Parliament

Parliament is not yet receiving a complete picture

5.71 The federal government will have spent $1.8 billion between 2003 and 2008 for drinking water (and wastewater) on reserves. Given the importance of the First Nations Water Management Strategy for water safety in First Nations communities, we expected that Indian and Northern Affairs Canada and Health Canada would have identified specific performance indicators for the strategy and would be collecting sufficient and appropriate information on these indicators to be able to report to Parliament on the strategy's progress.

5.72 In 2003, the departments submitted a Results-Based Management and Accountability Framework to the Treasury Board. This framework contained performance indicators, data sources for measuring progress against these indicators, responsibilities for measuring performance, and reporting frequencies for each indicator. It also identified outputs and immediate, intermediary, and final outcomes. However, we found that in 2003–04 the departments did not collect information against many of the indicators identified; therefore, they were limited in what they could report to Parliament about the strategy. However, officials told us that implementation of the strategy started late in the first year.

5.73 Some critical performance indicators are missing. Although one of the main objectives of the strategy is to upgrade all water systems on reserves to meet applicable standards, the departments did not identify as a performance indicator the number of on-reserve systems meeting these standards. Moreover, they did not identify water quality and the percentage of the on-reserve population accessing safe drinking water from community systems. Without this type of information, it will be difficult to demonstrate to Parliament whether the strategy is succeeding in improving the quality and safety of drinking water.

5.74 Parliament is not yet receiving enough information about the strategy and the quality and safety of drinking water in First Nations communities. In our view, efforts to capture the required performance information on the progress of the strategy and on drinking water on reserves, and to report this information to Parliament, must be accelerated.

5.75 **Recommendation**. Indian and Northern Affairs Canada and Health Canada should

- ensure that they collect information on implementation of the First Nations Water Management Strategy and on drinking water in First Nations communities;
- determine the information that would be relevant to Parliament, including the percentage of the on-reserve population accessing safe drinking water, the number of water systems meeting standards, the quality of the drinking water, and the amount of funds spent; and
- report this information to Parliament beginning with the 2006–07 fiscal year.

Indian and Northern Affairs Canada's response. Indian and Northern Affairs Canada is currently collecting data against key indicators identified under the First Nations Water Management Strategy. In addition, the Department plans to conduct a formative evaluation of the First Nations Water Management Strategy. Indian and Northern Affairs Canada will

- in conjunction with Health Canada, conduct a formative evaluation of the First Nations Water Management Strategy, to evaluate progress in terms of improved water quality on reserves by December 2006;

- review current data collection tools and procedures to ensure that information is being collected against all performance indicators identified in the accountability framework submitted to the Treasury Board in 2003, identify any missing performance indicators in the accountability framework, and revise current data collection tools and procedures to include these key indicators so that relevant information may be collected and reported to Parliament by April 2006; and

- in addition to reporting progress on the First Nations Water Management Strategy for 2005–06, provide all relevant information to Parliament beginning with the 2006–07 fiscal year.

Health Canada's response. Health Canada agrees with this recommendation. As identified in the First Nations Water Management Strategy, the Department has recently finalized national data standards for performance indicators and put in place a system to facilitate the collection of these data. Health Canada will modify these data standards and the associated systems to respond to the recommendations. This information will be reported to Parliament by the 2006–07 fiscal year.

Conclusion

5.76 Indian and Northern Affairs Canada, Health Canada, and First Nations do not operate under a regulatory regime for drinking water as most provinces do. There are also weaknesses in program management in both departments. When it comes to the safety of drinking water, residents of First Nations communities do not benefit from a level of protection comparable with that of people living off reserves.

5.77 There is no statute or regulation requiring the monitoring of the quality and safety of drinking water in First Nations communities. Health Canada relies on its staff and on First Nations to sample and test drinking water quality. Regular tests at the frequency recommended under the Guidelines for Canadian Drinking Water Quality are not carried out in most First Nations. When the results of these tests are reported to Health Canada, they are not properly recorded; nor are they systematically shared with Indian and Northern Affairs Canada.

5.78 Finally, not all the information identified was collected by the departments in 2003–04 and some critical indicators were missing. Parliament is not yet receiving enough information about the First Nations Water Management Strategy and the quality and safety of drinking water in First Nations communities.

About the Audit

Objectives

The objectives of the audit were to determine whether

- the programs and funding of Indian and Northern Affairs Canada (INAC) and Health Canada provide First Nations communities with access to safe drinking water comparable with that of communities of a similar size and location;
- sufficient and appropriate information on the quality of the drinking water is being reported by Health Canada to First Nations, INAC, and other appropriate parties; and
- sufficient and appropriate information is being collected by INAC and Health Canada to ensure that the government is able to report to Parliament on the results of the First Nations Water Management Strategy.

Scope and approach

The audit focussed on the activities of INAC and Health Canada related to the safety of drinking water in First Nations communities, including the technical services provided to INAC by Public Works and Government Services Canada, and the results of those activities. We examined whether these programs were working well to provide these communities with access to safe drinking water comparable with that of other communities of a similar size and location. We reviewed policy developments and analyzed information since 1995. We also looked at how well the First Nations Water Management Strategy is being implemented. This strategy was introduced in 2003 to substantially improve the quality and safety of drinking water in First Nations.

The audit team carried out interviews with departmental managers and staff and reviewed relevant documents at INAC and Health Canada headquarters and in three regions (Ontario, Manitoba, and British Columbia). We reviewed 28 drinking water system projects funded by INAC in 20 First Nations communities between 1995 and 2004, and their operation and maintenance where relevant. We also looked at the activities in these communities for monitoring the quality of drinking water, and we examined the results of those activities. The audit team visited six First Nations communities. These visits involved discussions with political leaders, water and/or capital managers, and operators of water treatment plants, as well as general observations of plant conditions.

Criteria

Our audit was based on the following criteria:

- Indian and Northern Affairs Canada and Health Canada comply with authorities and ensure that funding is used for the purposes intended.
- The departments provide funding on the basis of appropriate standards and licensing to help First Nations communities provide residents with access to safe drinking water comparable with that of other Canadians living in similar communities.

- INAC develops plans to upgrade and build First Nations drinking water treatment systems to meet standards.
- INAC ensures that appropriate management practices are in place to assess, prioritize, approve, and monitor individual drinking water capital projects.
- The departments ensure that appropriate management practices are in place to monitor systems and test First Nations drinking water to ensure that the water meets standards.
- Health Canada shares information on the quality of drinking water with the First Nations, INAC, and, depending on the nature of results, other appropriate parties.
- The departments ensure that timely and appropriate actions are taken by the appropriate parties, as per their roles and responsibilities, when available information demonstrates that a First Nation's drinking water is unsafe or there is a risk to the health and safety of First Nations residents.
- The departments are able to demonstrate to Parliament how they will achieve the expected results set out in the First Nations Water Management Strategy.

Related audit work

December 1997 Report of the Auditor General, Chapter 35, Follow-up of Recommendations in Previous Reports: Indian and Northern Affairs Canada: On-Reserve Capital Facilities and Maintenance—1995, Chapter 23

November 1995 Report of the Auditor General, Chapter 23, Indian and Northern Affairs Canada: On-Reserve Capital Facilities and Maintenance

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Appendix List of recommendations

The following is a list of recommendations found in Chapter 5. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
Governing framework	
5.36 Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should develop and implement a regulatory regime for drinking water in First Nations communities. This regime should be comparable with that in provinces and designed to protect the health and safety of First Nations people. As a minimum, this regime should deal with roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements. **(5.24-5.35)**	**Indian and Northern Affairs Canada's response.** Indian and Northern Affairs Canada will continue to implement the First Nations Water Management Strategy aimed at improving program elements—specifically, roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will • fully explore the options and feasibility of a regulatory regime with all other stakeholders for drinking water on reserve. All aspects of a proposed regime will be assessed, including establishing new legislation, regulations, and enforcement mechanisms. An action plan for the implementation of the chosen option will be produced by September 2006; • continue to develop and implement mechanisms aimed at ensuring compliance with the required standards regarding drinking water quality until a regulatory regime is in place. This will include finalizing the *Protocols for Safe Drinking Water in First Nations Communities* recently developed under the First Nations Water Management Strategy, which includes key elements covered in a provincial regulatory regime and which will provide clear direction on how First Nations are to incorporate these elements in the management of their drinking water by April 2006; and • continue to develop and implement amendments to funding arrangements in line with the codes and standards contained in the above-noted protocol document, to strengthen drinking water management practices consistent with provincial regulatory requirements by April 2007. **Health Canada's response.** The political and governance issues in First Nations communities are very complex. First Nations have identified the need for self-government as a priority. Health

Recommendation	Department's response
	Canada and Indian and Northern Affairs Canada will assess the feasibility of this recommendation and options for implementation, in consultation with First Nations stakeholders. In the interim, Health Canada will improve program delivery in the areas identified by the auditors as a strength of provincial legislation, specifically in the areas of roles and responsibilities, water quality requirements, technical requirements, compliance and enforcement, and public reporting requirements. These actions will be completed by December 2006.
Program management **5.68** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should • clarify the codes and standards applicable to the design and construction of drinking water systems; • consider such factors as the quality of water sources, local capacity, potential for innovation, and cost effectiveness when approving funding for water systems; and • develop mechanisms to obtain assurance that all required factors are taken into account when approving drinking water projects and that codes and standards are complied with. (5.37-5.49)	**Indian and Northern Affairs Canada's response.** Work is well under way to create codes, standards, and protocols applicable to the design, construction, and commissioning of drinking water systems under the First Nations Water Management Strategy. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will • review Indian and Northern Affairs Canada's *Action Framework for Safe, Clean Drinking Water and Effective Wastewater Treatment for First Nations*, and related protocols regarding the design and construction of drinking water systems, to ensure the codes and standards are clear, understandable, and consistently applied by April 2006. These documents will also include a list of all relevant codes and requirements that First Nations drinking water systems must meet; • review the project review process, as currently documented in the *National Framework for the Review of Water and Wastewater Systems in First Nations Communities*, including the list of factors that are to be considered when approving funding for water systems, such as the quality of water sources, local capacity, potential for innovation, and cost effectiveness by September 2006; and • strengthen mechanisms to verify that all codes and standards have been complied with, including a checklist of all required factors that must be taken into account when approving and commissioning drinking water systems by April 2006. **Health Canada's response.** Health Canada agrees with this recommendation. In collaboration with Environment Canada, Indian and Northern Affairs Canada, and Public Works and Government Services Canada, Health Canada developed the *National Framework for the Review of Water and Wastewater Systems*

Recommendation	Department's response
	in First Nations Communities, which was distributed to regional offices in March 2005. This document delineates the role of each department in the integrated review process for drinking water and wastewater project proposals in First Nations communities. Health Canada's role in the review process is to review the projects from a public health perspective. The Department is currently developing a set of guidelines to provide additional assistance to Health Canada reviewers in this regard. These actions will be completed by May 2006. Health Canada will continue to work together with Indian and Northern Affairs Canada, in consultation with First Nations, on clarifying codes and standards and developing mechanisms to obtain assurance on the approval of drinking water projects and compliance with codes and standards.
5.69 Health Canada, in consultation with Indian and Northern Affairs Canada and First Nations, should ensure that • all drinking water tests recommended under the Guidelines for Canadian Drinking Water Quality are being carried out; • test results are properly recorded and relevant information is shared with appropriate parties; • situations where drinking water is not safe, or where there is no assurance of drinking water safety, are clearly identified and actions to be taken in each situation are defined; and • action is taken by responsible parties as required. **(5.50-5.53)**	**Indian and Northern Affairs Canada's response.** In collaboration with Health Canada and First Nations, Indian and Northern Affairs Canada will ensure that roles and responsibilities are more clearly defined for the sharing of monitoring and test results, as well as for actions taken following situations where water is found to be unsafe, so that timely actions are taken by all parties to ensure public health and safety. Indian and Northern Affairs Canada, with Health Canada, will • finalize the Memorandum of Understanding between Indian and Northern Affairs Canada and Health Canada regarding the collection and sharing of information by December 2005; • clarify and formalize the roles and responsibilities of the Department, First Nations, and Health Canada, as identified in Health Canada's *Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°*, for situations in which drinking water in First Nations communities is not safe or where there is no assurance of water safety, and clearly define actions to be taken by April 2006; and • develop a communication and follow-up procedure for informing all affected parties of potentially unsafe water by May 2006. **Health Canada's response.** Health Canada agrees with this recommendation. The Department has finalized a *Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°*, wherein procedures for recording and sharing test results and identifying and taking action when water is not safe are detailed. The procedure manual will be updated by

Recommendation	Department's response
	December 2006 to reflect the recommendations of the audit, in consultation with regional offices, other Health Canada areas and subject matter specialists, other government departments, and First Nations stakeholders.
5.70 Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should • assess the capacity and support that First Nations need to deliver safe drinking water in their communities; • establish the institution or institutions that could consolidate these capacity-building and support functions for all First Nations; and • define the information that the departments and First Nations need to demonstrate that the drinking water is safe. **(5.54-5.67)**	**Indian and Northern Affairs Canada's response.** Indian and Northern Affairs Canada will examine and improve capacity-building and support in First Nations communities for the provision of safe drinking water. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will • develop and conduct a survey to assess the capacity of First Nations communities to provide safe drinking water by September 2006; • review, evaluate, and strengthen existing mechanisms for capacity development and support for First Nations communities by June 2006. This will include evaluating options, such as the establishment of new or identification of pre-existing institutions to consolidate capacity-building and support for all First Nations, and the production of an action plan for implementing the recommended option; and • establish the required information, by December 2006, that the Department and First Nations need to demonstrate that drinking water on reserves is safe. This will be done through implementation of the recently developed annual inspections that evaluate the performance and the condition of the systems, as well as the data collected by Health Canada. **Health Canada's response.** Health Canada agrees with this recommendation. The Department builds First Nations capacity and provides support to First Nations through the provision of advice and recommendations to First Nations communities and by funding and training community-based monitors of drinking water quality. We have made progress in addressing the provision of support capacity through the First Nations Water Management Strategy. Health Canada will have finalized a national framework for training community-based monitors of drinking water quality by December 2005. Together with Indian and Northern Affairs Canada and in consultation with First Nations, Health Canada will examine the feasibility of the establishment of an institution or institutions to consolidate capacity building and support functions for all First Nations by June 2006.

Recommendation	Department's response
Reporting to Parliament	
5.75 Indian and Northern Affairs Canada and Health Canada should • ensure that they collect information on implementation of the First Nations Water Management Strategy and on drinking water in First Nations communities; • determine the information that would be relevant to Parliament, including the percentage of the on-reserve population accessing safe drinking water, the number of water systems meeting standards, the quality of the drinking water, and the amount of funds spent; and • report this information to Parliament beginning with the 2006–07 fiscal year. **(5.71-5.74)**	**Indian and Northern Affairs Canada's response.** Indian and Northern Affairs Canada is currently collecting data against key indicators identified under the First Nations Water Management Strategy. In addition, the Department plans to conduct a formative evaluation of the First Nations Water Management Strategy. Indian and Northern Affairs Canada will • in conjunction with Health Canada, conduct a formative evaluation of the First Nations Water Management Strategy, to evaluate progress in terms of improved water quality on reserves by December 2006; • review current data collection tools and procedures to ensure that information is being collected against all performance indicators identified in the accountability framework submitted to the Treasury Board in 2003, identify any missing performance indicators in the accountability framework, and revise current data collection tools and procedures to include these key indicators so that relevant information may be collected and reported to Parliament by April 2006; and • in addition to reporting progress on the First Nations Water Management Strategy for 2005–06, provide all relevant information to Parliament beginning with the 2006–07 fiscal year. **Health Canada's response.** Health Canada agrees with this recommendation. As identified in the First Nations Water Management Strategy, the Department has recently finalized national data standards for performance indicators and put in place a system to facilitate the collection of these data. Health Canada will modify these data standards and the associated systems to respond to the recommendations. This information will be reported to Parliament by the 2006–07 fiscal year.

Report of the Commissioner of the Environment and Sustainable Development to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the
Commissioner of the Environment and Sustainable Development
to the House of Commons

Chapter 6
Green Procurement

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

6

Green Procurement

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

Why federal green procurement? 3
Focus of the audit 4

Observations and Recommendations 5

Government-wide direction and support 5
The government still does not have a green procurement policy and strategy 5
The government needs to raise the profile of green procurement 7
Sustainable development strategies have not been well used to advance green procurement 9
Performance measurement requires better planning 10
Practical support to buyers needs to be improved 12

Role of Public Works and Government Services Canada 13
PWGSC has underused its potential to advance federal green procurement 13

Green procurement in some other departments and agencies 16
Most of the eight departments and agencies are not following a clear plan for greening their procurement 17
The Canada Revenue Agency is taking significant steps to green its procurement 18
Canadian Heritage has an ad hoc approach to green procurement 20

Conclusion 22

About the Audit 25

Appendix

List of recommendations 27

Green Procurement

Main Points

What we examined

Green procurement involves buying goods and services that are less harmful to human health and the environment than competing products that serve the same purpose. We examined efforts to promote and support green procurement across the federal government, including guidance to departments on how to address green procurement in their sustainable development strategies. We also looked at the approach taken by eight departments and agencies in their strategies and the progress made on specific commitments by three departments.

Why it's important

The federal government is one of the largest purchasers of goods and services in Canada, spending a reported $13 billion each year. This means that greening federal procurement can deliver substantial benefits. The government can significantly reduce the environmental burdens of its operations by buying goods that are energy efficient, for example, or that are produced without using or releasing toxic substances, or that are easily disassembled for reuse and recycling. Green procurement can also boost the availability of green products and services and stimulate innovation, in line with the government's promotion of sustainability as a key to Canada's competitiveness.

Recognizing these benefits, the federal government has made numerous commitments to green its procurement, dating back to 1992. Several recent developments, such as the government's decision to increase central management of procurement, provide new opportunities to take effective action.

Significant progress on green procurement requires clear government-wide direction on what is expected, who is accountable, and how progress will be measured, as well as practical support through expert advice and training. Progress also depends on clear commitments and follow-through by individual departments.

What we found

- Important progress on greening procurement is possible, as shown by initiatives both within and outside the federal government. Yet after more than a decade of promises, the federal government is still not using the potential of green procurement as a tool to achieve sustainable development objectives.
- Central direction on green procurement is missing. Instructions to develop a government-wide approach to green procurement were first given in 1994, but there is still no federal strategy or policy. In the 2004 Speech from the Throne, the government recommitted to develop and implement a government-wide green procurement policy by 2006. But this requires considerable work, and no full-time personnel have been dedicated to it.
- Some of the key federal documents on the roles and responsibilities of buyers and suppliers do not address green procurement. Similarly, the federal government has not effectively used sustainable development strategies as a way of advancing green procurement.
- There is currently no credible basis to assess government-wide progress on green procurement.
- Public Works and Government Services Canada (PWGSC), the department with the most significant government-wide procurement responsibilities, has taken some initiatives to raise awareness about green procurement. But it has not made significant progress in greening the procurement services it offers to federal departments and agencies. For example, PWGSC's standing offers are used by departments and agencies for routine purchasing of common goods and services. But fewer than two percent of the standing offers on PWGSC's Web-based index are designated as green.

Public Works and Government Services has responded, on behalf of the responsible departments and agencies. It has agreed with the recommendations. Its consolidated response, including the actions it plans to take, can be found at the end of the chapter.

Introduction

Why federal green procurement?

6.1 **The scale of federal procurement means that the benefits of greening could be substantial.** The federal government is one of the largest purchasers in Canada. In recent years, it has spent a reported $13 billion annually on goods and services that range from paper clips to airplanes and from building maintenance to specialized scientific research.

Green procurement—It is the purchase of goods and services that are less harmful to the environment and to human health than competing products and services. It includes

- looking at how needs could be met without new purchasing
- choosing a manufacturer who can demonstrate good environmental management practices, and
- buying goods that are produced with fewer resources, do not use or release toxic substances, are energy efficient, or are easily disassembled for reuse and recycling.

Managing the environmental impact of purchases goes beyond green procurement. How they are used, maintained, and disposed is also important.

6.2 The government has recognized that by greening its own procurement it can

- reduce environmental impacts,
- increase "green" products and services in the Canadian marketplace and stimulate green innovation (see special insert on page 4),
- lead by example, and
- share experiences and tools with other levels of government and the private sector.

6.3 The federal government has made many commitments on green procurement over the years. For example

- In 1992, through its Code of Environmental Stewardship, it committed to ensuring that environmental considerations would be integrated into government purchasing policies and practices.
- In 1995, it identified green procurement as one of seven priority areas for greening its own operations.
- In 2002, it made international commitments on green procurement through the Organisation for Economic Co-operation and Development, and at the World Summit on Sustainable Development.
- In 2004, in the Speech from the Throne and in 2005, in the federal Budget, it committed to implementing a green procurement policy by 2006.

6.4 Recent federal developments strengthen the potential for progress on green procurement. They include the following:

- The government is taking steps to further increase central management of procurement by Public Works and Government Services Canada (PWGSC). This presents opportunities to build green procurement expertise, expand tools, and set requirements.

- The Prime Minister recently gave the Minister of Public Works and Government Services Canada the lead to make rapid progress in greening government operations, including greening procurement. To help fulfill this mandate, in April 2005 PWGSC launched the Office of Greening Government Operations.
- The government is beginning to promote a vision of the Canadian economy that makes environmental sustainability key to competitiveness. Federal green procurement can play a role in increasing green products and services and stimulating innovation.

Major buyers can stimulate a greener marketplace

The Canadian book industry. A few years ago, Canadian book publishers who wanted to use paper with a high recycled content had to place a special order with their printer, and pay a sizeable premium. But a campaign by an environmental organization led a growing number of publishers to demand more environmentally appropriate paper. This prompted numerous Canadian pulp and paper companies to develop "ancient forest friendly" papers for books, including several that are chlorine-free and made completely from post-consumer recycled fibre. Now most Canadian book printers stock some of these papers. Canada's success has stimulated similar initiatives in the U.S. and Europe. Also, because some publishers want to continue greening the paper they use, Canadian mills are now experimenting with agricultural fibres in paper.

IKEA. The furniture company IKEA wanted to sell compact fluorescent light bulbs (CFLs) because of their high energy efficiency, but was concerned about their mercury content. So it set a low maximum mercury content when it solicited bids from manufacturers. The company that won the initial contract offered an economically-priced CFL that met this requirement. IKEA maintains a competitive incentive for continued reductions—it will buy the CFL with the lowest mercury content as long as it performs to specifications.

Focus of the audit

6.5 Our audit of green procurement focussed on two objectives:

- Determine the extent and influence of government-wide direction and support for green procurement, including guidance on how to deal with green procurement in departmental sustainable development strategies.
- Assess whether the Canada Revenue Agency, Canadian Heritage, and Public Works and Government Services Canada had delivered on selected green procurement commitments made in their 2001 strategies.

Sustainable development strategies—More than thirty federal departments and agencies are now required to submit a sustainable development strategy to Parliament every three years. These organizations are also expected to report against the commitments that they set out in their strategies.

More information on our audit objectives, scope, approach, and criteria is provided in **About the Audit.**

The recommendations we make are directed primarily to PWGSC, since it has the key federal mandate on procurement and is now the designated leader for greening government operations.

Observations and Recommendations

Government-wide direction and support

The government still does not have a green procurement policy and strategy

6.6 Attempts to develop a government-wide approach to green procurement span more than ten years. For example

- In 1994, a committee of deputy ministers asked the Treasury Board Secretariat and Environment Canada to work with departments to develop a federal plan for green procurement.
- In late 1999, an interdepartmental working group was established under the Treasury Board Advisory Committee on Contracts (TBACC) to develop a green procurement policy and strategy. The working group decided to focus only on the policy. The policy is key to establishing government-wide vision and objectives for green procurement and who will be accountable for meeting them.
- In early 2003, the TBACC finalized a proposed policy. It then sent the policy to the three co-chairs of the Directors General Coordinating Committee of Sustainable Development in Government Operations (SDGO)—Environment Canada, Natural Resources Canada, and Public Works and Government Services Canada—"for appropriate action."

6.7 Yet for a variety of reasons—including confusion about organizational roles; shifts in responsibilities; unclear relationships between the green procurement policy, its guidelines, and the strategy; changes in the Secretariat's approach to policy development; and lack of dedicated staff—there is still no government-wide green procurement policy or strategy. (When we refer to the green procurement policy, it includes the policy and its guidelines, unless otherwise noted.). The task group on green procurement, a sub-committee of the SDGO, is still working on a proposed policy to present to Treasury Board, and on a strategy it began in 2003. One of the costs of delay is that, in anticipation of a federal policy, some departments curbed their efforts to develop and implement their own green procurement plans.

Policy, guidelines, and the strategy—As explained in recent documents, the green procurement **policy**—which will be part of Treasury Board's procurement policy framework—will provide direction to deputy heads. It will be accompanied by **guidelines**, which are instructions for employees. The **strategy** will provide advice to assistant deputy ministers and directors general who are responsible for procurement.

6.8 **There is no full-time staff working on the policy or strategy.** Developing a coherent, long-term policy and a strategy to support green procurement is complex and demanding—especially with so many federal departments and agencies involved. A lot of effort has been put in over the years to develop a policy and strategy, but without any full-time staff. Given the remaining challenges—agreeing on a draft policy to submit to Treasury Board, getting it approved by

Treasury Board, and developing the strategy—there is a risk that fragmented attention will not yield success.

Who is responsible for government-wide direction on green procurement?

Public Works and Government Services Canada (PWGSC) has a key and growing role in federal procurement, and it has recently been given the lead in greening government operations. At the same time, the Treasury Board Secretariat's involvement is essential because green procurement is a government-wide issue. Other departments also have a role. In particular, Environment Canada and Natural Resources Canada, with PWGSC, are co-sponsors of the policy. These departments also co-chair the Sustainable Federal House in Order initiative, of which Sustainable Development in Government Operations is a part.

6.9 The Treasury Board Secretariat has an important role to play in ensuring that the policy is coherent and complete enough to allow for efficient review and approval by Treasury Board, and that it will be a good basis for advancing federal green procurement. Part of this role is to ensure that the submission to the Treasury Board is clear about the resources needed to implement the policy.

6.10 **Recommendation.** Public Works and Government Services Canada and the Treasury Board Secretariat, in co-operation with other responsible departments and agencies, should take all necessary steps—including setting milestones, allocating adequate resources, and assigning staff with appropriate expertise—to ensure that the green procurement policy is completed, approved, and implemented by 2006. This is the timeframe promised in the 2004 Speech from the Throne.

6.11 The money for procurement comes from the annual budgets of program managers. If they believe that "green" is more expensive, they—and the procurement staff who assist them—might be reluctant to consider green products and services. It is important that the policy and strategy provide clear direction on how to overcome the cost barriers, both perceived and real (Exhibit 6.1).

Exhibit 6.1 Steps to address the cost barriers to green procurement

Dispel the perception that "green" is more expensive

- Some green goods and services cost the same or even less than regular goods and services.
- There can be savings at other points in the life-cycle. For example, lower energy consumption, maintenance, repair, or disposal costs can make up for a higher up-front cost.
- Education can raise awareness of these realities and promote life-cycle costing.

Promote consideration of indirect benefits

Based on health or environmental benefits, green procurement may provide better value for Canadians even when direct costs—the price paid plus the cost of use, maintenance, and disposal—are higher. Progress in taking such benefits into account will depend on the following:

- Communicating clearly to program managers and procurement personnel about the options they have—including how much they can spend and under what circumstances—to favour products and services with significant environmental benefits.
- Establishing tools and mechanisms to deal with cost constraints, such as
  - cross-subsidization—allowing savings from procurement in one area to be applied to greening procurement in another area, and
  - a "federal first-buyer" fund, providing additional funds for the purchase of promising green products and services.

Differences in the environmental impact of competing products can be significant

With floor coverings, for example, *The Environmentally Responsible Construction and Renovation Handbook*, by PWGSC, points out that

> Linoleum consists entirely of renewable resources and does not emit serious pollutants. Vinyl is made of non-renewable petroleum, is not biodegradable, and gives off the greatest amount of emissions of all common floor coverings.

The government needs to raise the profile of green procurement

6.12 Federal procurement is governed by many acts, policies, and trade agreements; is carried out by all departments and agencies; and involves a huge number of federal employees (Exhibit 6.2). In some of its procurement, the government also tries to promote socio-economic benefits. In this complex environment, a green procurement policy is not enough; the government needs to use many other channels to promote and support greener procurement.

Exhibit 6.2 Federal procurement: A complex environment

The departments and agencies

Treasury Board. It is responsible for the government's procurement policy framework and process.

Public Works and Government Services Canada (PWGSC). It is the common service provider for federal procurement. It has an exclusive mandate for procurement of goods but has delegated some authority to other departments and agencies.

Other departments and agencies. They use PWGSC for some of their procurement and also manage some internally. The way each organization manages procurement varies considerably, including the degree of decentralization.

The people

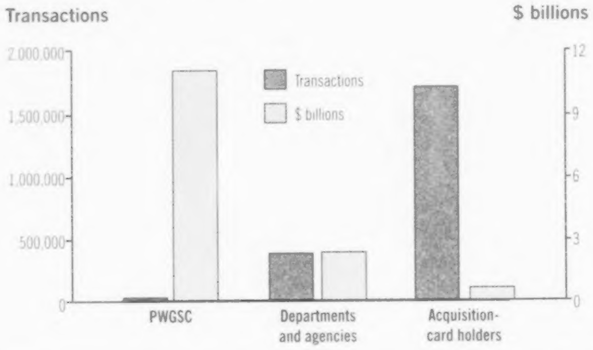
Contracting or procurement officers and their managers. They handle procurement processes such as soliciting and evaluating bids, and negotiating and managing contracts. There are over 2,000 federal employees classified as procurement personnel, but others also carry out these activities. The majority of procurement personnel are in PWGSC.

Acquisition-card holders. They have been given authority for minor day-to-day purchasing required for their operations. They number in the tens of thousands.

Program managers and other personnel. They identify procurement needs and cover the cost of the purchased goods and services from their budgets.

The numbers

In 2003, total federal procurement of goods and services was reputed to be about $13.9 billion, and was distributed as follows:



6.13 Green procurement has been missing from some key documents that direct and guide federal buyers. For example, Treasury Board's Contracting Policy provides comprehensive direction on procurement. Revised in June 2003, it still does not refer to environmental considerations in procurement. This is also true of the Customer Manual, a key PWGSC guide to provide federal buyers and materiel managers with information on PWGSC's purchasing services. On the other hand, the New Buyers' Guide, the manual that explains to federal buyers the rules and procedures for buying, does promote green purchasing.

6.14 The greening of procurement also has not been reflected in government-wide and departmental initiatives to improve procurement. For example, we identified 20 audits and evaluations on contracting and procurement conducted over the last three years by the nine departments that we examined, including PWGSC. None of these addressed any environmental dimensions of procurement. Nor was the issue reflected in the report of the recent government-wide review of procurement.

6.15 Under these circumstances, it is not surprising that green procurement is not a high priority for procurement staff. A recent government-wide survey on procurement included questions such as

- What should be the secondary objectives of contracting?
- What constitutes effective procurement?

Only 12 of the 64 departments and agencies who responded made any reference to the environment, sustainable development, or green procurement. Also, according to PWGSC, in 2003–04 the government's main Web site on green procurement—the Green Procurement Network—had an average of only 140 hits a month.

Did you know?

The federal government is looking to green procurement as one way to reduce its own greenhouse gas emissions, as reflected in its April 2005 climate change plan (Project Green). This is part of a commitment to ensure that its internal operations are among the "greenest" in the world.

6.16 In our view, even though a green procurement policy is not yet in place, the government should move on other important opportunities to advance green procurement. Treasury Board Secretariat, Public Works and Government Services Canada, and Environment Canada could include guidance and information on green procurement whenever they develop and update government-wide procurement policies, directives, guidance, and related materials.

6.17 Another way the government could raise the profile of green procurement is to clearly signal to senior procurement personnel—and to managers of programs that generate significant demand for goods and services—that progress on green procurement is part of their job. The Treasury Board Secretariat has noted that one tool for effectively

Did you know?

Mountain Equipment Co-op, a retail co-operative, includes environmental goals in the annual performance and bonus plans of staff, including those responsible for procurement.

managing change is setting targets in individual performance agreements and tying the results to performance pay. At least one department, Canadian Heritage, committed to including "green" purchasing in the performance contracts of managers with significant responsibilities for procurement—although, it has not yet done so.

6.18 **Recommendation.** Through the green procurement policy and strategy, Public Works and Government Services Canada, in co-operation with other responsible departments and agencies, should promote the inclusion of green procurement expectations in the performance evaluation of managers with significant procurement responsibilities, and should require departments and agencies to report on implementation.

Sustainable development strategies have not been well used to advance green procurement

6.19 The federal government could use departmental sustainable development strategies to deliver on its long-standing commitments to green procurement.

6.20 For the 2001 strategies, the deputy ministers of the three departments that co-chaired Sustainable Development in Government Operations—Environment Canada, Natural Resources Canada, and Public Works and Government Services Canada—signed off on proposed targets and performance measures for the strategies. These addressed all aspects of greening government operations. Some departments and agencies included one or more of the proposed green procurement targets and measures in their strategies, or ones that were similar. During our audit we were told that procurement personnel were not involved in developing the targets and performance measures. As a result, some were not necessarily well adapted to procurement realities. For example, one of the proposed measures—total value of green purchases—is currently impractical (see Exhibit 6.3 for more information).

6.21 For the 2004 strategies, the government did not provide guidance to departments and agencies on green procurement. We cannot directly link this lack of guidance with deficiencies in the way federal organizations addressed green procurement in their strategies. However, when we compared how green procurement was addressed in the 2001 and 2004 strategies of eight departments and agencies, we found a decline in the number of departments and agencies that made green procurement commitments, and in their measurability.

The EcoLogo™ is the certification symbol of the Environmental Choice Program, an environmental labelling program set up by Environment Canada in 1988 and managed by a private firm.

6.22 We also observed that departments seldom used existing tools and opportunities to set simple, concrete objectives and targets. For example, in the 2001 and 2004 strategy commitments of the eight departments and agencies

- None indicated that EcoLogo™ certified products and services or their equivalent would be used, where available.
- Only one indicated that the "green" hotels listed in PWGSC's accommodation directory would be used, where possible.

More generally, we found that the type and quality of the green procurement commitments varied greatly between the eight organizations.

6.23 Since all federal organizations buy goods and services, it is possible to set some common objectives and targets. The three-year cycle of the strategies could be used to set progressively more ambitious green procurement objectives and targets, as opportunities emerge.

6.24 **Recommendation.** Public Works and Government Services Canada, in co-operation with other responsible departments, should ensure that the green procurement strategy sets out the role of the sustainable development strategies in green procurement. It should also ensure that guidance on green procurement is developed in time for the 2007 strategies, including a core set of practical and progressive green procurement objectives and targets that departments and agencies would be expected to incorporate.

"Green" hotels—The 2005 accommodation directory for federal employees shows the eco-ratings given by both the Green Key and Green Leaf programs.

Performance measurement requires better planning

6.25 In our 2000 chapter on greening government operations, we found very limited use of common performance indicators to measure and report on progress. Since then, some departments and agencies have responded to efforts by the Sustainable Development in Government Operations (SDGO) to build a government-wide picture on greening government operations. But the SDGO has acknowledged that reporting on green procurement has been far from adequate to assess overall federal progress. Improvements in reporting will likely require a staged approach (Exhibit 6.3).

6.26 At least until a single electronic system for federal procurement is in place, government-wide reporting on green procurement could be derived from departmental reporting associated with the sustainable development strategies. This would require that

- the government set some common performance measures for the strategies, tied to the core set of objectives and targets recommended in paragraph 6.24.

- departments consistently report progress on the measures in their strategies.

Moreover, if applied to other aspects of greening government operations, this approach could reduce risks and inefficiencies associated with fragmented reporting—including the challenge for parliamentarians and other Canadians in getting a comprehensive picture of the government's progress in greening its operations.

Exhibit 6.3 Measuring performance on green procurement: A possible staged approach

Long-term approach: Tracking the dollar value of green procurement as a proportion of total procurement

This measure has been promoted by Sustainable Development in Government Operations, and in the current draft of the green procurement policy. However, a consistent government-wide approach is not currently viable, and individual departments and agencies have encountered big challenges in developing their own ways to apply it. Hurdles include

- the lack of a consistent approach to identifying what is "green;"
- the need to adapt multiple procurement tracking systems to allow green purchases to be flagged at the point of purchase; and
- at the government-wide level, the absence of a co-ordinated system for tracking federal procurement.

As confirmed in the 2005 Budget, the government intends to establish a single electronic system for purchasing, paying, and reporting. Such a system could include a capability to track proportionate green procurement at the department and government-wide levels.

Short-term approach: A combination of approaches to measure progress

Until a common system is in place, progress can be tracked with a combination of approaches such as

- Measuring performance based on specified common targets, as in the following example:

  Target. Increase, by a specified percentage, the number of room-nights in "green" hotels spent by employees travelling on government business.

  Performance measure. The government's accommodation directory includes eco-ratings for hotels. All hotels listed in the directory are supposed to provide semi-annual reports on government usage, including the number of room-nights used per month. If this information was provided consistently, it would be possible to track the number of room-nights spent in eco-rated hotels as a proportion of total room-nights.

- Using other performance measures promoted by the SDGO in its guidance for the 2001 strategies, such as the number of requests for proposal with green specifications.
- Reporting anecdotally on key successes, along the lines described in the Treasury Board Secretariat's 1995 Green Procurement Reporting Framework.

6.27 Recommendation. Public Works and Government Services Canada and the Treasury Board Secretariat, in co-operation with other responsible departments, should

- ensure that the green procurement policy establishes clear accountability for reporting annually on progress; and
- develop a plan to improve green procurement reporting through the sustainable development strategies.

Practical support to buyers needs to be improved

6.28 Over the years various departments and agencies, including Public Works and Government Services Canada (PWGSC), Environment Canada, Natural Resources Canada, and the Treasury Board Secretariat, have provided government-wide support for green procurement through tools, information, and training. In addition, some departments and agencies have developed their own internal policies, training, guidance, and information.

6.29 Specific examples of initiatives to develop green procurement tools and information include

- PWGSC's profiles of green criteria for over 90 types of products and services.
- Labelling programs developed by Natural Resources Canada (EnerGuide) and Environment Canada (EcoLogo™).
- PWGSC's greening of the National Master Specifications.

The National Master Specifications

PWGSC's National Master Specifications is a library of "master" specifications for the construction industry and contains over 700 sections. Specification writers use them to prepare documents to accompany construction drawings. These documents direct builders and suppliers on the materials to be used, and the methods for their handling, installation, and disposal.

Most sections now include notes on the environmental impacts of alternative materials and methods, and some provide actual environmental specifications. For example, the section on gypsum board assemblies (drywall) lists the benefits of gypsum fibreboard over gypsum board—recycled content, less energy consumed in production, requires less joint compound.

6.30 Some progress has also been made on training. By 31 March 2005, 18 percent of PWGSC's designated procurement personnel—about 250 individuals—had taken the Department's green procurement training course. Though this is slower progress than promised, it is a good step. And PWGSC has also trained most of its acquisition card holders in green procurement. In addition, around 200 employees from other departments and agencies have taken the PWGSC course.

6.31 We are concerned, however, that there has been duplication in initiatives to develop and deliver training, tools, and information. On the training side, in addition to PWGSC's course, other federal organizations have offered green procurement training. For example, some departments have developed in-house training, and at one point, Environment Canada also offered a course. For tools, there are three federal Web sites on green procurement that offer similar information (one difference being that PWGSC's Green Procurement Network has the green product and service profiles). At least one department has also developed a green procurement Web site.

Standing offers—They are offers from suppliers to provide goods or services under set terms and conditions, including a pre-arranged price. Over the term of an offer, departments can make requests (call-ups) against the offer, up to a specified maximum amount. This makes it easier and faster for departments to do routine purchasing of common goods and services.

6.32 Such duplication is an inefficient use of resources. For example, if the resources used to develop and maintain separate Web sites had been consolidated, a single Web site could be better maintained. As it stands, key links on the most prominent site—the Green Procurement Network—are out of date. These include links to help buyers find existing green standing offers.

6.33 In addition, there are gaps in the availability of practical tools. For example, federal buyers have indicated that standard green clauses they could use in developing their contracting documents would be helpful. To date, there are no such clauses in PWGSC's Standard Acquisition Clauses and Conditions. As another example, a Web directory of green goods, services, and suppliers, sponsored by PWGSC, is no longer available.

6.34 Finally, we found little evidence that the government is following up on whether the training, tools, and information provided are making a difference, and how to improve them.

6.35 **Recommendation.** Public Works and Government Services Canada, in co-operation with other responsible departments, should ensure that

- the green procurement strategy establishes a consistent, co-ordinated approach to green procurement training and to the development and delivery of tools;
- green procurement is a required competency, and is a mandatory part of any required training program, for procurement personnel.

Role of Public Works and Government Services Canada

6.36 As the common service provider for federal procurement, Public Works and Government Services Canada (PWGSC) has a critical role to play in greening federal procurement. On behalf of its client departments and agencies, PWGSC

- negotiates standing offers and supply arrangements with suppliers, and
- acts as the client's contracting agent when the existing standing offer or supply arrangement does not meet the client's needs.

PWGSC has underused its potential to advance federal green procurement

6.37 **Only a small portion of standing offers are for green products or services.** Standing offers are an important federal procurement vehicle. PWGSC has indicated that standing offers are used for about

40 percent of purchases made in the top 10 categories of goods and services, and spending in these top 10 categories is currently in the order of $5.7 billion. Moreover, spending through standing offers will grow with the new requirement for departments and agencies to use these arrangements where available. PWGSC's Web-based Standing Offer Index allows buyers to search for standing offers that have been designated "green." But as of February 2005, fewer than two percent of the offers in the index were designated "green." Given this, it is unlikely that procurement done through green standing offers amounts to a significant proportion of total procurement. We could not determine the actual proportion, because the Department does not consistently track purchasing done through standing offers.

A green standing offer for printers

Over the last several years, PWGSC has successfully greened its standing offers for copiers, printers, and fax machines. Specified environmental criteria are applied in evaluating bids, such that a green product may provide "best value" even if the purchase price is higher. Given the positive response by industry, PWGSC has had to strengthen the criteria to distinguish between product offerings.

6.38 Also, it is not always obvious what makes designated offers "green," and whether all products that can be ordered through a given offer are green. Since there can be no simple, single criteria for what makes a product or service green, it is important that the basis for calling an offer "green" is clear.

6.39 Green standing offers are not the default or preferred option. When departments and agencies use PWGSC standing offers, they are not required to give priority to those designated "green." And none of the eight departments that we reviewed made a commitment in their sustainable development strategies to use PWGSC green standing offers as a default. With the new requirement for departments to use PWGSC standing offers and other pre-negotiated arrangements, it is important that "green" options be available and be given first consideration.

Federal green procurement can be mandated

The federal vehicle fleet is one area where government-wide green procurement requirements have been set. The *Alternative Fuels Act* requires federal departments and agencies, when operationally feasible and cost-effective, to purchase vehicles capable of using alternative fuels. Feasibility and cost-effectiveness issues have held back progress. In 2003, 293 of the 3,431 vehicles purchased by the federal government were alternative fuel vehicles as defined in the Act, and an additional 84 were gasoline-electric hybrids. The more recent Executive Vehicle Policy sets a firmer requirement—vehicles for ministers and high-ranking officials must be hybrid-electric, if available from the manufacturers. Also, greenhouse gas emissions are now considered when purchasing any government vehicle.

6.40 Recommendation. Public Works and Government Services Canada should review standing offers and other pre-negotiated arrangements to determine which should be greened. It should also ensure that procurement officers give first consideration to green offers.

6.41 PWGSC is ambiguous about its role in encouraging clients to include green specifications in the contracts it negotiates for them. When standing offers are not used, PWGSC contracting officers will help client departments and agencies define their requirements, solicit and evaluate bids, and negotiate and manage the contracts. The Department has acknowledged that it has often been passive on including green specifications in contracts—it has responded when a client wants to take environmental issues into account. This passive approach is not in keeping with commitments reflected in its sustainable development performance reporting and in other documents—to actively promote green.

6.42 Neither PWGSC nor its clients are systematically pursuing opportunities to include green specifications in requests for proposals or other contracting documents. We asked seven departments to provide instances of working with PWGSC to green their procurement; four said that there had been limited or no efforts, and three cited only a few examples.

6.43 We also audited two specific commitments made by PWGSC, in its 2001 strategy, on greening the procurement services the Department offers to client departments and agencies. As shown in Exhibit 6.4, some progress was made on the first commitment. Some progress was also made on two of the three performance measures the Department set for the second commitment, but these measures were not well designed to support a conclusion against the commitment.

6.44 **PWGSC now has significantly more responsibility and opportunity to be proactive in greening procurement.** The Department has a new mandate to be the federal lead on greening government operations, which includes green procurement. This leadership role coincides with an increase in the Department's procurement responsibilities, due to the move toward greater central management of federal procurement. The impact on other

Exhibit 6.4 Progress on selected green procurement commitments by PWGSC

Performance measure	Progress	Comments
Commitment: By April 2004, increase number of green products and suppliers available in the e-purchasing and cataloguing application.		
Number of new green products and suppliers in the e-purchasing and cataloguing application.	◓	From 2002 to 2003, PWGSC reported a large increase in the number of suppliers and products. But there was no progress between 2003 and 2004. Suppliers and products in this application are designated as green based on self-identification by the supplier.
Commitment: By 31 March 2004, ensure that environmental impacts are considered in all PWGSC contracting.		
Implement elements of the Green Contracting Strategy.	◓	The Strategy was never finalized; but there has been progress against some of the elements identified in the draft. One of the significant achievements was establishing the Green Procurement Network.
Implement the reporting system for green standing offers.	○	No system is in place.
Number and percentage of PWGSC contracting officers who have received specific training, as identified in the needs analysis.	◓	Performance reports for each of the three years covered by the commitment indicated that all PWGSC contracting officers would receive green procurement training. To date, fewer than 20 percent of PWGSC employees classified as procurement officers have received the training.

● Satisfactory progress ◓ Some progress ○ Limited or no progress

departments and on interdepartmental committees with responsibilities for greening government operations—such as Sustainable Federal House in Order—is not yet clear.

6.45 **Recommendation.** In light of its new lead in greening government operations, Public Works and Government Services Canada, with support from the Privy Council Office, should clarify the responsibilities of other departments and interdepartmental committees that have an important role in greening government operations, including green procurement. It should continue to build on the organizational structure that has been evolving through the Sustainable Federal House in Order.

6.46 One area of opportunity is the government's shift to more commodity-based management of procurement. This approach, confirmed in the 2005 federal Budget, is intended to better reflect market forces in the industries, products, and services that make up each **commodity category**. It will involve establishing interdepartmental commodity councils and management teams to "develop strategic plans for sourcing unique categories of goods and services in consultation with all stakeholders."

Commodity category—The recent Task Force on Government-Wide Procurement identified the top 40 commodity categories—groups of related goods, services, or construction materials that account for an estimated 94 percent of the value of federal procurement. Examples of categories include construction work for buildings; instruments and laboratory equipment; and communications, photographic, mapping, printing, and publication services.

6.47 With this approach, PWGSC could build in-depth knowledge of environmental issues and opportunities. This knowledge would help ensure that the councils and teams are aware of green options as they become available. This is necessary if the federal government is to be an "early adopter" of green products and services. It will also give the councils and their teams the understanding and credibility to work with suppliers to bring about future improvements. Because each commodity category is broad, each council could identify the goods or services that are priorities for "greening," based on the potential to reduce environmental burdens.

Did you know?

PWGSC recently organized a forum—the first of its kind federally—that brought buyers and suppliers together to discuss green procurement in the categories of paper, toner cartridges, and digital imaging devices (printers, photocopiers, scanners, fax machines). The forum was very well reviewed—buyers and suppliers felt it helped increase understanding of environmental issues and opportunities.

6.48 **Recommendation.** Public Works and Government Services Canada should include green procurement as a key part of initiatives to improve and increase central management of procurement. Specifically, it should include green procurement in the mandate of the commodity councils and management teams.

Green procurement in some other departments and agencies

6.49 All departments and agencies have opportunities and a responsibility to advance green procurement, regardless of weaknesses in government-wide direction and support. In all of these organizations, program managers supported by procurement personnel acquire the goods and services needed to carry out their business. Depending on the type of purchase and the kind of procurement authority that has been delegated, they may use PWGSC standing offers, engage PWGSC as the contracting agent, or set up and manage the contract process directly.

6.50 We looked at whether any of the eight departments and agencies we examined had set an overall direction on green procurement. We examined the way green procurement was treated in their strategies. We also looked at materials provided by the departments on green procurement planning that had been done through their environmental management systems or internal policies.

Most of the eight departments and agencies are not following a clear plan for greening their procurement

6.51 None of the sustainable development strategies of the eight organizations included an overall picture and plan for green procurement. However

- Two—Canada Revenue Agency and Foreign Affairs Canada—are using environmental management systems to plan and implement their approach to green procurement.
- Two—Health Canada and Natural Resources Canada—provided evidence that some comprehensive planning has been done, but in both cases it remains at a draft stage.
- Four—Department of Canadian Heritage, Environment Canada, Indian and Northern Affairs Canada, and Industry Canada—do not have a current comprehensive plan for greening their procurement.

6.52 This finding is consistent with those previously described—green procurement is not a high priority for federal procurement staff (paragraph 6.15); and none of the departments we examined is systematically working with PWGSC to green its contracting documents (paragraph 6.42).

6.53 Our audit also looked at how two very different federal organizations—the Canada Revenue Agency and Canadian Heritage—are implementing green procurement. They were chosen because of differences in size, procurement budget, and procurement authorities, and because they both made significant green procurement commitments in their 2001 strategies.

PARTNERS FOR
A GREEN HILL
PARTENAIRES POUR
UNE COLLINE VERTE

Did you know?

Partners for a Green Hill involves four organizations—the Senate of Canada, the House of Commons, the Library of Parliament, and Public Works and Government Services Canada's Parliamentary Precinct Directorate—working together to improve environmental programs and implement new initiatives on Parliament Hill. As one result, all Senate and House of Commons requests for proposal (RFPs) must now include rating points for environmental performance. At a minimum, all RFPs contain a standard evaluation criterion on good environmental practices by suppliers. Partly due to its work on green procurement, *Partners* won an award from the Canadian Council of Ministers of the Environment.

6.54 We examined each department's progress in implementing selected commitments from their 2001 strategies. We also looked more broadly, to see what green procurement systems and approaches the two organizations had in place.

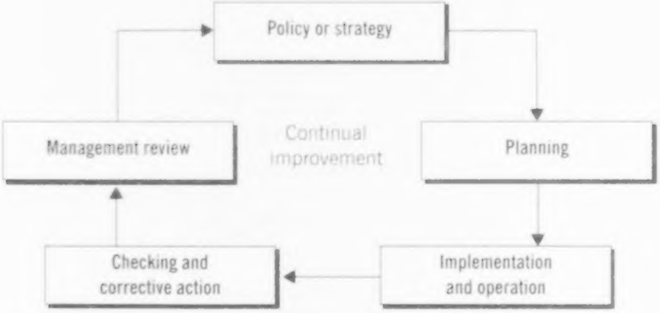
The Canada Revenue Agency is taking significant steps to green its procurement

6.55 We were impressed with the systems and approaches that the Canada Revenue Agency is putting in place to green its procurement, and with their initial results. The Agency directly controls its own procurement activities, independent of Treasury Board policies and PWGSC. It spends a substantial amount on procurement. For these reasons, it is in a good position to invest in greening its own procurement, which it has done:

- It uses an environmental management system (Exhibit 6.5) to make ongoing advances in greening its procurement.
- It has engaged senior management commitment on greening operations, including green procurement initiatives.
- Staff from its Sustainable Development Division work with procurement personnel to establish green specifications for requests for proposals.
- It has taken initiatives to engage, inform, and motivate its staff on green procurement.

Exhibit 6.5 Environmental management systems: A foundation for progress

A well-functioning environmental management system, backed by senior management, is a strong indicator that intended results will be achieved. For this reason, in past reports, we have encouraged departments and agencies to set up an environmental management system to help deliver their sustainable development strategy commitments. The following are the basic elements of a management system.



6.56 Specialized environmental management programs, including one on green procurement, are part of the Agency's environmental management system. Through these programs, it develops annual commitments and tracks progress. This approach supports the Agency's annual reporting on sustainable development performance.

6.57 As shown in Exhibit 6.6, the Agency also made some important advances on the two specific commitments from its 2001 sustainable development strategy that we audited. However, in neither case did we find sufficient overall progress to warrant a rating of satisfactory.

Exhibit 6.6 Progress on selected green procurement commitments by Canada Revenue Agency

Performance measure	Progress	Comments
Canada Revenue Agency		
Commitment: Introduce environmental specifications into the National Individual Standing Offers (NISO)		
Number of NISOs with environmental specifications	◓	Based on public reporting and on additional information from the Agency, nine of twenty NISOs were greened between 2001 and 2004—two of six in 2001–02, one of seven in 2002–03, and six of seven in 2003–04. Some of the NISOs that did not have environmental specifications were for services that are not readily greened. But for some of the NISOs that were counted as greened, the environmental specifications are quite limited.
Number of call-ups against NISOs	Not assessed	The number of call-ups on green NISOs versus non-green NISOs is not very meaningful. This is because NISOs cover a range of goods and services from expensive, low-volume items such as computer servers to inexpensive, high-volume items such as office supplies. A more meaningful measure would be spending on green goods and services purchased through NISOs, as a proportion of total NISO spending. Comprehensive information for such a measure was not available. However, available figures indicate that for 2003–04, the proportion of green spending through the office supply NISO was in the order of 25 percent.
Commitment: Increase the number of clauses that give consideration to sustainable development/green procurement in the contractual process, including selection criteria for requests for proposals (RFPs)		
Number of RFPs and contracts that include clauses for sustainable development and green procurement	◓	Implementation was delayed by one year. For the following two years, the Agency only tracked RFPs for "strategic sourcing"—major supply arrangements for common products and services that account for a large proportion of procurement transactions. This overlaps with the greening of NISO-type arrangements. While progress was made, there is redundancy in reporting. The Agency's internal reporting indicates a goal to consider 100 percent of procurement vehicles for greening by 2004. This was not met and was deemed impractical. Our request for information on top-value RFPs confirmed that some, but not many, included green clauses beyond the standard clause requesting bidders to take steps to reduce paper use in their proposal submission. A menu of green clauses to facilitate greening of contract documents was developed in 2004.

● Satisfactory progress ◓ Some progress ○ Limited or no progress

6.58 In summary, the Agency still has a long way to go to ensure "greening" of all its procurement. However, it has taken a systematic approach to green procurement that is yielding results beyond "basic" steps on greening, such as recycled content for paper or "sleep" mode for electronic equipment. For example, its recent request for proposal on filing and storage cabinets included a range of mandatory and rated life-cycle environmental criteria—from emissions in the manufacturing process to packaging, take-back, and reuse. Another example is described in Exhibit 6.7.

Canadian Heritage has an ad hoc approach to green procurement

6.59 Canadian Heritage is a much smaller department with relatively modest procurement spending, weighted more toward services than goods.

6.60 We found that procurement staff at the Department have taken steps to green some procurement. For example, for many years Canadian Heritage has collaborated with other departments in its headquarters building to obtain EcoLogo™ certified recycled paper, which it uses for virtually all of its requirements. It has also promoted re-use and recycling in contracts for pavilion construction and exhibits.

Exhibit 6.7 Reducing consumption by shifting to a "service" orientation

Efforts at the Canada Revenue Agency to reduce environmental impacts while saving costs are illustrated by the shift it is planning from individual photocopiers, printers, scanners, and faxes to multi-functional devices (MFDs) that fulfill all these requirements. The decision to make this shift was initially fuelled by anticipated lower costs from centralized procurement of the MFDs. But the Agency's Sustainable Development Division saw the potential for significant environmental benefits and helped shape the initiative.

As a result, environmental factors figured strongly in the initial process to engage interested suppliers. Moreover, the current approach to rolling out the initiative involves not only green specifications for the devices and a requirement that the contractor have an environmental strategy, but also actions that promote the potential to reduce consumption.

One anticipated outcome is a major reduction in the number of machines. The Agency estimates that it can replace its 26,000 widely varying printing, photocopying, and faxing devices, as they "rust out" or as their leases expires, with about 7,000 networked MFDs. Another key element, from an environmental perspective, is that the monthly costs for Agency users will be based partly on the amount of printing done. It is hoped that this will provide an incentive to think more carefully about printing needs.

At the same time, since the MFDs will be owned and serviced by the contractor, the approach represents a shift from buying goods (printers) to buying services (printing). This approach establishes an economic incentive for the contractor to improve the durability and re-usability of the equipment. In addition, since the contractor will be required to cover toner and/or developer costs, there will also be an incentive to improve the efficiency of the equipment.

6.61 For the most part, however, the Department's green procurement initiatives address only obvious opportunities. And overall, the Department's approach to green procurement is very ad hoc. There is little connection between senior management, environment staff, and procurement staff to advance the green procurement agenda at Canadian Heritage. One procurement officer has been given the lead on green procurement; but no money has been dedicated to it. The Department does not have a system for regularly collecting performance information on green procurement, and does virtually no reporting on green procurement commitments made in its sustainable development strategy. We also found little basis for the Department's claim in its 2002–03 performance report that all its requests for proposals offer merit points for bidders who certify they have environmentally friendly programs and practices.

6.62 For the specific green procurement commitment that we audited from Canadian Heritage's 2001 strategy, we were not able to conclude because—as explained in Exhibit 6.8—the proportion of procurement that is green has not been tracked or analyzed. For the performance measures on training and awareness, the Department told us that substantial green procurement training had taken place prior to 2000; but we found that action during the commitment period was limited.

Exhibit 6.8 Progress on selected green procurement commitments by Canadian Heritage

Performance measure	Progress	Comments
Canadian Heritage		
Commitment: Increase by 10 percent annually the percentage of "green" goods and services purchased		
"Green" purchases as a proportion of total purchases	Not assessed	The Department's financial information system does not track green procurement, and the Department did not analyze its purchases to determine the proportion that was "green," as it had proposed to do. It is worth noting that the commitment—which reflects guidance provided by the Sustainable Development in Government Operations for the 2001 strategies—was challenging. And difficulties in measuring proportionate green procurement are systemic.
Number of employees who have received training on green procurement.	○	We were told that a number of procurement officers have had some training in green procurement, ranging from presentations and workshops to courses. However, little training was undertaken during the commitment period.
Proportion of employees aware of the Department's green procurement policies and practices		Overall, we found minimal evidence of meaningful action on awareness-building, though the Department has included references to sustainable development objectives in standard procurement training.

● Satisfactory progress ◓ Some progress ○ Limited or no progress

6.63 It is likely that in the case of relatively small departments, such as Canadian Heritage, strong government direction and support are particularly important for substantial progress on green procurement.

Conclusion

6.64 After more than a decade of promises, the federal government is still not using the potential of green procurement as a tool to achieve sustainable development objectives.

6.65 We found some—but not satisfactory—progress on selected green procurement commitments made by three federal organizations in their 2001 sustainable development strategies. However, the Canada Revenue Agency has begun to take significant and systematic action to green its procurement. More broadly, we found that environmental considerations do not typically figure in procurement by federal departments and agencies.

6.66 **The mixed picture at the department level reflects the limited extent and influence of government-wide direction and guidance.** In our view, the following has held back progress:

- Lack of a federal green procurement strategy or policy
- Lack of substantial profile for green procurement in other federal procurement policies, and in key guidance documents
- Inconsistent development and use of government-wide direction on how to address green procurement in the sustainable development strategies
- Lack of a credible basis or practical plan for measuring performance and assessing government-wide progress
- Inadequate support for buyers

6.67 Public Works and Government Services Canada (PWGSC), the department with the most significant government-wide procurement responsibilities, has taken some initiatives to raise awareness and capacity for green procurement. But it has not made significant progress in greening the procurement services it offers to other federal departments and agencies.

6.68 **Recent developments strengthen the potential for progress on federal green procurement.** The federal government is promoting sustainability as a key to Canadian competitiveness. Greening its own procurement is one direct way the federal government can stimulate marketplace attention to sustainability. The current push toward a more systematic, central approach to federal procurement can be used to move green thinking to the forefront. With support from the Treasury Board Secretariat and other departments, PWGSC is in a strong position to make this happen.

Public Works and Government Services Canada's overall response to our recommendations, on behalf of the responsible departments and agencies. We agree with your recommendations. The following summarizes current and proposed actions that respond to the recommendations.

Foundation initiatives. The Prime Minister has given the Minister of Public Works and Government Services the lead in greening government operations, in cooperation with his colleagues the President of the Treasury Board and the Minister of the Environment. In order to help realize this objective, Public Works and Government Services Canada (PWGSC) established, in May 2005, the Office of Greening Government Operations. Since then, this office has worked with other government departments to undertake a number of foundation initiatives to help fulfil this mandate, including:

- the consolidation of the interdepartmental governance structure to provide clear and focused leadership in this area. PWGSC has and will continue to work with other departments, including the Privy Council Office, to ensure that the departmental and committee roles are clear as this is a prerequisite to a coordinated government-wide approach in this area;
- the development of a Performance Management Framework to allow the government to collect the performance data necessary for continued improvement. This will reflect common performance indicators and a common set of government-wide priorities.

Green procurement further supports the government's efforts to green operations and reduce greenhouse gas (GHG) emissions. For example, the procurement of environmental technologies and materials has already resulted in PWGSC's new office buildings, such as the 27-storey office building at 401 Burrard Street in Vancouver, using water more efficiently, generating less waste and consuming less energy. Since 1992, PWGSC has achieved 34 percent energy efficiency gains and a corresponding 24 percent reduction of GHG emissions from its building inventory through green procurement initiatives. PWGSC will vigorously pursue future opportunities to use green procurement to support these and other key environmental objectives.

The green procurement policy. PWGSC in co-operation with the Treasury Board of Canada Secretariat (TBS) and other responsible departments are setting milestones, allocating resources, and assigning staff with appropriate expertise in order to develop a green procurement policy and implementation plan consistent with the 2004 Speech from the Throne. The policy will be completed, approved, and implemented by 2006. It will

- Harness the power of the government's *The Way Forward* initiative that mandates the use of Standing Offers for the most common commodities and services purchased by government.
  - Commodity councils and management teams will ensure that environmental criteria are incorporated into relevant standing offers as they are put in place over the next 24 months.
  - The mandatory use of these standing offers will ensure a more consolidated and strategic approach to green procurement than the more transactional processes currently in place.
- Ensure a consistent and coordinated approach to green procurement training through TBS' existing Professional Development and Certification Program for the Procurement, Material Management and Real Property Communities.
- Include consideration of performance expectations for relevant managers. PWGSC will include accountability for green procurement in the performance agreements of relevant managers and will encourage other departments to follow suit.
- Set out clear accountabilities for reporting annually on progress. Tracking and monitoring of green procurement will be facilitated through
  - the Government of Canada Marketplace, an on-line purchasing tool currently under development; and
  - departments' annual reports on their progress in meeting the objectives described in their sustainable development strategies.

Sustainable development strategies. In order to assist departments in preparing their 2007–10 sustainable development strategies, PWGSC, in consultation with the TBS and other responsible departments, is seeking to develop the following by December 2005:

- a core set of practical and progressive green procurement objectives;
- a common set of priorities and performance indicators; and
- a plan to improve green procurement reporting.

PWGSC will also work with departments to establish green procurement targets for their sustainable development strategies.

About the Audit

Objective

Our audit had two objectives:

- **Green procurement direction.** Determine the extent and influence of government-wide direction and support for green procurement, including guidance on how to deal with green procurement in sustainable development strategies.
- **Green procurement commitments.** Assess the progress on selected green procurement commitments made by three departments in their 2001 strategies.

Scope and approach

Green procurement direction. To determine the extent of efforts being made to promote and support green procurement federally, we focussed on organizations with key responsibilities for government-wide policy, planning, and support for green procurement: Public Works and Government Services Canada; the Sustainable Development in Government Operations Initiative (in particular, the Task Group on Green Procurement and the Task Group on Guidance); and the Treasury Board Secretariat.

To determine whether and how government-wide direction was making a difference, and in particular whether any direction specific to the strategies was reflected in them, we examined eight departments: Canada Revenue Agency, Canadian Heritage, Environment Canada, Foreign Affairs Canada, Health Canada, Indian and Northern Affairs Canada, Industry Canada, and Natural Resources Canada.

Green procurement is one of seven areas the federal government has identified as key in greening its own operations. The other categories are waste management, water use, energy use in federal buildings, motor vehicle fleets, land use management, and human resources management. We did not plan to look at initiatives in these other categories, but we did come across examples of green procurement in some of them. One of these examples, related to motor vehicle procurement, is cited in this chapter.

Green procurement commitments. We examined progress on selected commitments made in the 2001 strategies of the Canada Revenue Agency, Canadian Heritage, and Public Works and Government Services Canada. We looked only at commitments from the 2001 strategies, because it was too early to audit commitments from the 2004 strategies. The three departments we chose have different levels of procurement and responsibilities for procurement. However, each made meaningful green procurement commitments in their 2001 strategies. We felt that auditing these commitments would highlight federal green procurement opportunities and challenges. Also we chose Public Works and Government Services Canada because of its key role in government-wide procurement.

Criteria

The following criteria were used in our audit.

Green procurement direction

- A clearly structured and clearly mandated interdepartmental structure is in place to support federal departments to undertake green procurement. Some green procurement guidance and tools, in particular targeted to uptake of green procurement in the strategies, have been developed as a result.
- Departmental strategies are viewed, promoted, and supported by the relevant interdepartmental committee(s), and by departments and agencies, as one of the key vehicles for driving green procurement across the federal government.

Green procurement commitments

- The selected departments and agencies are measuring the results achieved on selected green-procurement commitments.
- The selected departments and agencies are meeting their performance expectations on the selected commitments.

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Appendix List of recommendations

The following is a list of recommendations found in Chapter 6. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's overall response
6.10 Public Works and Government Services Canada and the Treasury Board Secretariat, in co-operation with other responsible departments and agencies, should take all necessary steps—including setting milestones, allocating adequate resources, and assigning staff with appropriate expertise—to ensure that the green procurement policy is completed, approved, and implemented by 2006. This is the timeframe promised in the 2004 Speech from the Throne. **(6.6–6.9)**	**Public Works and Government Services Canada's overall response, on behalf of the responsible departments and agencies.** We agree with your recommendations. The following summarizes current and proposed actions that respond to the recommendations. **Foundation initiatives.** The Prime Minister has given the Minister of Public Works and Government Services the lead in greening government operations, in co-operation with his colleagues the President of the Treasury Board and the Minister of the Environment. In order to help realize this objective, Public Works and Government Services Canada (PWGSC) established, in May 2005, the Office of Greening Government Operations. Since then, this office has worked with other government departments to undertake a number of foundation initiatives to help fulfil this mandate, including: • the consolidation of the interdepartmental governance structure to provide clear and focused leadership in this area. PWGSC has and will continue to work with other departments, including the Privy Council Office, to ensure that the departmental and committee roles are clear, as this is a prerequisite to a co-ordinated government-wide approach in this area. • the development of a Performance Management Framework to allow the government to collect the performance data necessary for continued improvement. This will reflect common performance indicators and a common set of government-wide priorities.
6.18 Through the green procurement policy and strategy, Public Works and Government Services Canada, in co-operation with other responsible departments and agencies, should promote the inclusion of green procurement expectations in the performance evaluation of managers with significant procurement responsibilities, and should require departments and agencies to report on implementation. **(6.12–6.17)**	
6.24 Public Works and Government Services Canada, in co-operation with other responsible departments, should ensure that the green procurement strategy sets out the role of the sustainable development strategies in green procurement. It should also ensure that guidance on green procurement is developed in time for the 2007 strategies, including a core set of practical and progressive green procurement objectives and targets that departments and agencies would be expected to incorporate. **(6.19–6.23)**	

Recommendation

6.27 Public Works and Government Services Canada and the Treasury Board Secretariat, in co-operation with other responsible departments, should

- ensure that the green procurement policy establishes clear accountability for reporting annually on progress; and
- develop a plan to improve green procurement reporting through the sustainable development strategies. **(6.25–6.26)**

6.35 Public Works and Government Services Canada, in co-operation with other responsible departments, should ensure that

- the green procurement strategy establishes a consistent, co-ordinated approach to green procurement training and to the development and delivery of tools;
- green procurement is a required competency, and is a mandatory part of any required training program, for procurement personnel. **(6.28–6.34)**

6.40 Public Works and Government Services Canada should review standing offers and other pre-negotiated arrangements to determine which should be greened. It should also ensure that procurement officers give first consideration to green offers. **(6.37–3.39)**

6.45 In light of its new lead in greening government operations, Public Works and Government Services Canada, with support from the Privy Council Office, should clarify the responsibilities of other departments and interdepartmental committees that have an important role in greening government operations, including green procurement. It should continue to build on the organizational structure that has been evolving through the Sustainable Federal House in Order. **(6.41–3.44)**

Department's overall response

Green procurement further supports the government's efforts to green operations and reduce greenhouse gas (GHG) emissions. For example, the procurement of environmental technologies and materials has already resulted in PWGSC's new office buildings, such as the 20-storey office building at 401 Burrard Street in Vancouver, using water more efficiently, generating less waste and consuming less energy. Since 1990, PWGSC has achieved 34 per cent energy efficiency gains and a corresponding 24 per cent reduction of GHG emissions from its building inventory through green procurement initiatives. PWGSC will vigorously pursue future opportunities to use green procurement to support these and other key environmental objectives.

The green procurement policy. PWGSC in co-operation with the Treasury Board of Canada Secretariat (TBS) and other responsible departments are setting milestones, allocating resources, and assigning staff with appropriate expertise in order to develop a green procurement policy and implementation plan consistent with the 2004 Speech from the Throne. The policy will be completed, approved, and implemented by 2006. It will

- Harness the power of the government's *The Way Forward* initiative that mandates the use of Standing Offers for the most common commodities and services purchased by government.
  - Commodity councils and management teams will ensure that environmental criteria are incorporated into relevant standing offers as they are put in place over the next 24 months.
  - The mandatory use of these standing offers will ensure a more consolidated and strategic approach to green procurement than the more transactional processes currently in place.

Recommendation	Department's overall response

6.48 Public Works and Government Services Canada should include green procurement as a key part of initiatives to improve and increase central management of procurement. Specifically, it should include green procurement in the mandate of the commodity councils and management teams. **(6.46–3.47)**	• Ensure a consistent and co-ordinated approach to green procurement training through TBS' existing Professional Development and Certification Program for the Procurement, Material Management and Real Property Communities.
	• Include consideration of performance expectations for relevant managers. PWGSC will include accountability for green procurement in the performance agreements of relevant managers and will encourage other departments to follow suit.
	• Set out clear accountabilities for reporting annually on progress. Tracking and monitoring of green procurement will be facilitated through:
	  • the Government of Canada Marketplace, an on-line purchasing tool currently under development; and
	  • departments' annual reports on their progress in meeting the objectives described in their sustainable development strategies.
	Sustainable development strategies. In order to assist departments in preparing their 2007–10 sustainable development strategies, PWGSC, in consultation with the TBS and other responsible departments, is working to develop the following by December 2005:
	• a core set of practical and progressive green procurement objectives,
	• a common set of priorities and performance indicators, and
	• a plan to improve green procurement reporting.
	PWGSC will also work with departments to establish green procurement targets for their sustainable development strategies.

Report of the
Commissioner of the Environment and Sustainable Development to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the

Commissioner of the Environment and Sustainable Development

to the House of Commons

Chapter 7

Sustainable Development Strategies

- Government-Wide Direction
- Quality of the 2004 Strategies
- Action on Strategy Commitments
- Action on International Commitments

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

7

Sustainable Development Strategies

- Government-Wide Direction
- Quality of the 2004 Strategies
- Action on Strategy Commitments
- Action on International Commitments

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

Focus of the chapter 3

Government-Wide Direction 4

Observations and recommendations 4

Commitments to develop a federal strategy have not been met 4
Departments could not agree on priorities for the 2004 strategies 7
The government faces barriers to sustainable development progress 8

Conclusion 15

Quality of the 2004 Strategies 16

What we expected for the strategies 16

Observations 17

There has been some improvement since the 2001 strategies 17
The quality of the strategies still varies widely 17
Departments report progress on strategy commitments regularly 17

Action on Strategy Commitments 20

Observations 20

Most departments have made satisfactory or some progress in meeting 10 strategy commitments 20

Action on International Commitments 27

Observations 27

The government does not have an action plan for 2002 World Summit commitments 27

About the Chapter 30

Appendix

List of recommendations 34

Sustainable Development Strategies

Main Points

What we examined

Every three years, many federal departments and agencies (currently over 30) are required to submit a sustainable development strategy to Parliament. We examined whether the government gave adequate government-wide direction on preparing their 2004 strategies. We looked at the work of a committee of deputy ministers that the Privy Council Office had tasked to provide that direction and at how well selected departments have incorporated the direction into their strategies.

We assessed how well the 2004 strategies met selected expectations from the Commissioner's March 2003 *Sustainable Development Strategies—Making a Difference,* which the government had endorsed. We also assessed actions by nine departments to implement 10 commitments they had made in their 2001 and 2004 strategies (other commitments are discussed in chapters 1, 4, and 6 of this Report). And we report on the federal government's actions to implement six international commitments it made at the 2002 World Summit on Sustainable Development in Johannesburg.

Why it's important

Sustainable development is based on the efficient and environmentally responsible use of natural, human, and economic resources. This includes sustaining our natural resources, protecting the health of Canadians and ecosystems, and improving our quality of life and well-being.

The government has said that departments' strategies are an important tool for advancing its sustainable development agenda. They set out specific commitments for departments, and Parliament can hold ministers accountable for how well their departments meet the commitments. The government has committed over the years to develop a federal sustainable development strategy that would help ensure good co-ordination among departmental strategies.

What we found

- **Government-wide direction.** The committee of deputy ministers responsible for overseeing sustainable development strategies could not agree on priorities for the 2004 strategies, leaving departments with little approved direction on how to co-ordinate their strategies. Nor did the committee develop the promised federal strategy; so Canadians and Parliament have no clear idea of the government's overall plan for sustainable development, how it will carry out the plan, and what progress it has made. Furthermore, for over a year there have been no significant efforts to provide direction for the next strategies, due in December 2006. During this critical time, the committee of deputy ministers ceased activities.

- **Quality of the 2004 strategies.** While the overall quality of strategies has improved somewhat since 2001, the quality of the 2004 strategies still varies widely. Every strategy has room for improvement.
- **Action on strategy commitments.** With one exception, departments have made some progress, if not satisfactory progress, toward meeting the 10 strategy commitments we looked at, many of which are only first steps toward sustainability. The exception is Transport Canada's lack of progress in identifying discharges of effluent and waste at major Canadian ports. Consequently, the discharges at the 19 Canada Port Authorities have not been determined. Depending on the quantities released, sewage effluent and other chemical discharges can negatively affect aquatic ecosystems and human health.
- **Action on international commitments.** The government still does not have an action plan for its 2002 World Summit commitments. The federal government risks not meeting three of the six commitments we examined because progress is slow in some areas and there is no information on progress in others.

The departments have responded. The Privy Council Office and Environment Canada have responded to our recommendations. The actions they are taking or plan to take are set out after each recommendation in the chapter.

Introduction

Sustainable development—It is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is based on the efficient and environmentally responsible use of natural, human, and economic resources. It integrates social, economic, and environmental considerations into decisions and actions. This includes sustaining our natural resources, protecting the health of Canadians and ecosystems, and improving our quality of life and well-being.

7.1 In 1995, in its *Guide to Green Government*, the government stated that **sustainable development** was a central theme of its policy agenda. It also amended the *Auditor General Act* to require the ministers of 25 departments and agencies to table a sustainable development strategy in Parliament every three years. In 2004, in its Speech from the Throne, the government added that it would "work with its partners to build sustainable development systematically into decision making."

7.2 Federal departments and agencies set out a series of commitments in their sustainable development strategies, and they report on progress made against those commitments. Ministers make specific commitments on behalf of their departments and can be held accountable by Parliament for how well those commitments have been met. The Commissioner of the Environment and Sustainable Development monitors and reports on the federal government's progress toward sustainable development, including the implementation of strategy commitments (see Action on Strategy Commitments on page 20).

Focus of the chapter

Did you know?

Departments have tabled three rounds of strategies in Parliament: **in 1997, 2001, and 2004**

The number of commitments they made
in 1997: **2,983**
in 2001: **2,672**
in 2004: **2,207**

7.3 **Government-wide direction.** Our audit objective was to determine whether the federal government provided sufficient direction to departments on the priorities for the strategies and whether the commitments made by departments and agencies in the 2004 strategies reflect these priorities. We examined the process for developing and providing direction, whether departments were able to respond to direction, and who was accountable for ensuring that strategies reflected the direction.

7.4 **Quality of the 2004 strategies.** We examined the extent to which the 2004 strategies met selected expectations set out in the Commissioner's 2003 *Sustainable Development Strategies—Making a Difference*. This document, developed in consultation with departments, was endorsed by the deputy ministers' Environment and Sustainable Development Coordinating Committee.

7.5 **Action on strategy commitments.** We assessed the actions of nine departments and agencies in implementing 10 commitments in their 2001 and 2004 sustainable development strategies. Chapters 1, 4, and 6 of this Report examined other strategy commitments.

7.6 **Action on international commitments.** We assessed the actions of three departments and the Environment and Sustainable Development Coordinating Committee on six international commitments made at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa.

7.7 For more information on the audit's objectives, scope, approach, and criteria, see **About the Chapter**.

Government-Wide Direction

7.8 The government has said that the sustainable development strategies are an important tool for advancing its sustainable development agenda, and that it should be held fully accountable for its progress in sustainable development. Through the strategies, departments were to integrate sustainable development into their policies and programs to fit their mandate and responsibilities.

7.9 In previous audits, we found that the strategies raise awareness of sustainable development within departments, inform stakeholders of departmental sustainable development activities, and identify areas that require more effort. However, we also found that

- strategy commitments are generally not measurable or meaningful,
- management systems that support the strategies are weak,
- leadership from senior management is often missing,
- there is too much focus on current and planned activities and not enough on long-term results, and
- performance reporting has been incomplete and inconsistent.

Achieving sustainable development is complex and difficult—strategies that specify clear roles, objectives, and action plans are essential for moving forward.

Observations and recommendations

Commitments to develop a federal strategy have not been met

7.10 By having individual departments and agencies prepare sustainable development strategies, the government has chosen a decentralized approach to advancing its sustainable development agenda. In 1999 and 2003, we called for a Government of Canada perspective on sustainable development. The government has agreed and recognized that a federal sustainable development strategy would

- provide a clear picture of the government's broad goals and directions,

- communicate the government's sustainable development plan to Canadians and parliamentarians,
- allow reporting on Canada's environmental performance,
- allow departments to align their strategies with other departments, and
- help departments develop meaningful commitments and action plans for their strategies.

7.11 The government has made commitments to develop a federal strategy over the years (Exhibit 7.1). Beginning in late 2001, Environment Canada led the development of a federal strategy, which was not completed. At the time of our audit, the Department had no plans to complete it.

7.12 **Many countries have a national strategy.** At the Earth Summit in 1992, more than 170 countries committed to develop a national sustainable development strategy. Since then, more than 20 countries have developed some form of strategy. These can provide a model for a Canadian federal strategy (see the United Kingdom example on page 7).

Exhibit 7.1 **The government has made commitments to develop a federal strategy over the years**

1992

Canada is one of over 170 nations at the Earth Summit in Rio de Janeiro to adopt Agenda 21—a blueprint for achieving sustainable development worldwide. It includes a commitment to develop national sustainable development strategies.

1997

Earth Summit+5 reviews progress in achieving Agenda 21 and recommends that "by the year 2002, the formulation and elaboration of national strategies for sustainable development that reflect the contributions and responsibilities of all interested parties should be completed in all countries."

2001

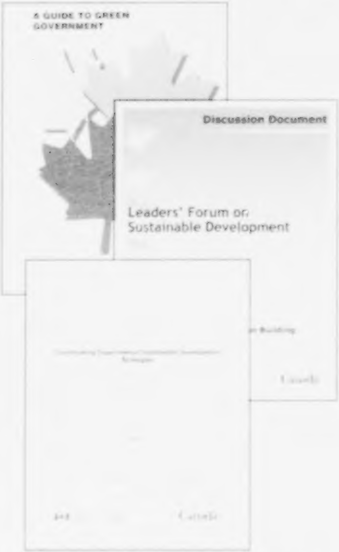
The Interdepartmental Network on Sustainable Development Strategies sets December 2003 as the goal for completing a federal strategy.

2002

Canada tables *Progress Towards a Sustainable Development Strategy for the Government of Canada* at the World Summit on Sustainable Development. The document notes that "the federal government is committed to preparing a Sustainable Development Strategy for the Government of Canada. This strategy would provide coherence to the federal government's sustainable development agenda and it would provide the framework for departments to coordinate their efforts."

2004

The Clerk of Privy Council requests that the Environment and Sustainable Development Coordinating Committee present a final draft federal strategy to him by September 2004.


A GUIDE TO GREEN GOVERNMENT
Discussion Document
Leaders' Forum on Sustainable Development

For the three strategies, the government has tried to set some overall priorities.

7.13 **Priorities change with each round of strategies.** Even though the government did not have a federal strategy, it has tried to set some overall priorities for the departmental strategies:

- **1997 strategies.** In 1995, the *A Guide to Green Government* set five objectives including greening government operations.
- **2001 strategies.** In 2000, the government held the Leaders' Forum on Sustainable Development, which resulted in eight themes. Some departments worked these themes into their 2001 strategies.
- **2004 strategies.** In 2003, the guidance document *Coordinating Departmental Sustainable Development Strategies* outlined another set of priorities and established elements for a common approach.

With each round of strategies, government-wide priorities have changed (Exhibit 7.2). We did not find a rationale for these changes.

Exhibit 7.2 **Government-wide priorities changed with each round of strategies**

1997 strategies: ***A Guide to Green Government***	**2001 strategies:** **Leaders' Forum on Sustainable Development**	**2004 strategies:** ***Coordinating Departmental Sustainable Development Strategies***
Sustaining natural resources—sustainable jobs, communities, and industries		
Protecting the health of Canadians and of ecosystems	Sustainable development and healthy Canadians	Federal role on fresh water
Meeting international obligations	Sustainable development in the international context	Implementation of international commitments from the World Summit on Sustainable Development
Promoting equity		
Improving quality of life and well-being		
Greening government operations	Sustainable government operations	Sustainable Development in Government Operations and Federal House in Order initiatives
	Productivity through eco-efficiency	
	Knowledge and information, sustainable development indicators and reporting	
	Federal sustainable development strategy for the North	
	Sustainability at the community level	
	Social and cultural aspects of sustainable development	

The United Kingdom: An example of a government strategy within a national sustainable development framework

In 2005, the UK Prime Minister released a revised sustainable development strategy for his government. The strategy

- set a small number of key priorities,
- required departmental action plans based on the strategy by December 2005, and
- explained how the UK was taking action on commitments from the World Summit on Sustainable Development.

The strategy was accompanied by a strategic framework—agreed to by the UK government and the devolved administrations in Scotland, Wales, and Northern Ireland—that would guide the sustainable development strategies of each. The strategy established 68 indicators on key outcomes to be reported annually, including 20 shared by the UK government and the devolved administrations.

A permanent group in the UK government's DEFRA (Department for Environment, Food and Rural Affairs), which monitors and reports on sustainable development across departments, led development of the strategy.

Securing the future

Departments could not agree on priorities for the 2004 strategies

7.14 In 2003, the deputy ministers of Environment Canada and Natural Resources Canada made a commitment to the Clerk of the Privy Council to develop guidance for the 2004 strategies. Under the initiative and leadership of the Deputy Minister of Natural Resources Canada, the Environment and Sustainable Development Coordinating Committee provided departments with a guidance document, *Coordinating Departmental Sustainable Development Strategies*. It included a draft government-wide vision on sustainable development, and three priorities for the 2004 strategies—federal role on freshwater, implementing the 2002 World Summit commitments, and greening government operations.

7.15 We expected the three priorities to be coherent and communicated to departments at an early stage in the development of their strategies. However, there were several problems:

- The Committee did not agree on the vision or the three priorities. Departments thought work on the vision and priorities would be completed during the summer, which was not the case.
- The document only identified priorities. Departments did not receive sufficient guidance to know what was expected of them.

- The document was completed only a few months before departments were to table their strategies. Departments stated that their strategies were too far along to incorporate the guidance.

The case study on page 9 demonstrates the need for proper guidance.

The government faces barriers to sustainable development progress

7.16 The government needs to improve its government-wide direction to departments. Specifically, departments need

- Better guidance on structure and reporting
- Clear and effective governance
- Engagement from central agencies
- Stronger senior management accountability

It is important that the government provide direction soon. No significant work has been underway over the past year to develop this direction. Departments must complete their next strategies by December 2006 and need time to plan and consult with other departments and central agencies.

Did you know?

The *Auditor General Act* permits the government, through regulations, to direct how departments prepare sustainable development strategies and what information they should contain.

7.17 **Departments need better guidance on structure and reporting.** The *Guide to Green Government* provided general guidance to departments on the structure of the 1997 strategies. That was 10 years ago, and it has not been updated. Departments are not consistent in how they report performance and categorize commitments in their strategies—this is confusing for those who use the strategies. For example, we found that departments used 10 different terms for what the guide called "goals." The Treasury Board Secretariat only provides limited advice in the form of guiding questions for reporting on sustainable development in departmental performance reports. Its guide for the reports on plans and priorities does not contain guidance on how to structure a strategy.

7.18 As well, the government has not provided Parliament and Canadians with an easily accessible way to search the strategies to determine what commitments have been made on sustainable development issues (for example climate change, air quality, and freshwater).

7.19 **Clear and effective governance does not exist.** The government created the deputy minister's Environment and Sustainable Development Coordinating Committee to ensure that departments collaborate on sustainable development, co-ordinate sustainable development initiatives, and manage the strategies' cross-cutting issues. At the time of our audit, the committee

- had not developed a federal strategy or overseen the implementation of Canada's 2002 World Summit commitments,
- did not have a secretariat with full-time personnel, and
- had not met in over a year and had no plans to meet.

The government's guidance for the three priorities in its 2004 strategies was inadequate

What we examined

We expected that central agencies and interdepartmental committees would provide guidance to departments on the three priorities identified in the government's *Coordinating Departmental Sustainable Development Strategies*:

- Federal role on fresh water
- Implementing 2002 World Summit commitments
- Greening government operations

We also expected departments to include commitments that were meaningful and contributed significantly to these three priorities.

What we found

Departments did not receive adequate guidance to help them incorporate the three priorities into their strategies. However, departments could have made further progress in incorporating the last two priorities—implementing 2002 World Summit commitments and greening government operations—into their strategies because they are basic to the mandate and operations of many departments.

Federal role on fresh water. The Environment and Sustainable Development Coordinating Committee asked the Interdepartmental Water Assistant Deputy Minister Committee to prepare a federal framework on fresh water. However, the Coordinating Committee did not approve the framework until February 2004, after the strategies were tabled in Parliament. Even then further work was needed to refine the framework. Without an approved federal direction, we could not determine if commitments made by departments contributed to significant government-wide progress on fresh water. If fresh water remains a federal priority, departments could use the framework to develop and incorporate targets and action plans into their 2007 strategies. (Chapter 4 of this Report, on safe drinking water, provides more information on the fresh water framework).

Implementing 2002 World Summit commitments. The 2002 World Summit on Sustainable Development developed the Plan of Implementation, which contained over 600 commitments. In 2003, the Earth Summit 2002 Canadian Secretariat started to prepare an action plan for 46 commitments, identifying the lead department for each one. The Secretariat was disbanded and never completed its plan, which could have helped departments incorporate the commitments into their strategies. We found that only four departments incorporated Summit commitments in their strategy action plans. Without an approved federal direction, we could not determine if commitments contributed to significant government-wide progress on World Summit commitments. See Action on International Commitments on page 27 for more details on Canada's progress in meeting its international commitments.

Greening government operations. All departments that produce a strategy have a role in greening government operations, and their strategies could be used to advance this area. In 2000, the government provided guidance on greening government operations, which included targets and measures for the 2001 strategies. Some departments incorporated them into their strategies.

For the 2004 strategies, the government did not produce guidance for greening its operations. However, 11 of 24 departments stated in their strategies that they would develop a common framework for measuring and reporting on greening operations. While a common framework is important, we expected the government to have made further progress by this time. The three largest property managers—Public Works and Government Services Canada, Correctional Services Canada, and National Defence—have made some progress; they will report on common indicators in 2006. Also, Treasury Board Secretariat, Environment Canada, and Public Works and Government Services Canada are developing a performance management framework that will explain their current state of greening operations and provide a governance model and reporting indicators. Treasury Board Secretariat informed us that the framework and its recommendations for action will be prepared by fall 2005.

We examined the commitments made by selected departments on vehicle fleet management, real property, and green procurement (see Chapter 6 of this Report for more details on green procurement commitments). We found that some departments had made specific commitments, while others referred to action plans that they were developing. In the absence of federal direction, we could not determine if commitments made by departments contributed to significant government-wide progress on greening operations.

7.20 In October 2004, the Prime Minister established the Ad Hoc Committee of Cabinet on Sustainability and the Environment to consider specific sustainable development and environment priorities, such as climate change and other items from the 2004 Speech from the Throne. A committee of deputy ministers supports the Ad Hoc Committee of Cabinet.

7.21 During our audit, the government established the Deputy Minister Policy Committee on Environment and Sustainability to replace the deputy minister's Environment and Sustainable Development Coordinating Committee. The committee's new mandate states that they "could" play a role in providing direction for the 2007 strategies, but this role has not yet been defined. The failure to develop a sustainable development strategy for the North is an example of the difficulty departments have in collaborating when governance mechanisms are not clear or effective (see Developing a federal sustainable development strategy for the North requires clear and effective governance, page 11).

7.22 To provide meaningful direction for the 2007 strategies and develop a federal strategy, the government will require assigned staff and resources, which could be housed in a sustainable development secretariat in a central agency or lead department.

7.23 **Engagement from the Privy Council Office and the Clerk is critical.** The Privy Council Office is responsible for policy cohesion and how the government operates. For example, on different occasions, the Clerk of the Privy Council asked the deputy ministers of Natural Resources Canada and Environment Canada, as co-chairs of the Environment and Sustainable Development Coordinating Committee, to work on a federal sustainable development strategy and provide guidance for the departmental strategies. Apart from a guidance document prepared by Natural Resources Canada, the Clerk's requests did not lead to results.

7.24 In 2002, we recommended that the federal government develop a clear vision of what a sustainable Canada would look like in 20 years, and provide departments with guidance and direction on their 2004 strategies. At the time, the Privy Council Office said that the Environment and Sustainable Development Coordinating Committee would take on this role. Yet there is still no clear vision of what a sustainable Canada would look like, and guidance and direction is inadequate. Efforts by the Privy Council Office were not sufficient to ensure that departments were adequately responding to its requests.

OECD
Environmental
Performance
Reviews
CANADA
OECD

Did you know?

In 2004, after reviewing Canada's environmental performance, the Organisation for Economic Co-operation and Development recommended that the government "prepare an integrated federal sustainable development strategy (including greening of the federal budget)."

Developing a federal sustainable development strategy for the North requires clear and effective governance

During public consultations for the 1997 strategies, Northerners told the government that they wanted greater communication, co ordination, and collaboration among federal departments that have northern operations. In 1999 an interdepartmental working group, led by Indian and Northern Affairs Canada and involving 20 departments, was formed. The group was to develop a sustainable development strategy for the North, which would eventually be part of a federal strategy. The strategy would integrate the objectives and actions of departments who were involved in the North and would be limited to federal mandate and jurisdiction.

In 2003, after two rounds of consultations and many interdepartmental discussions, the working group was dissolved. Their efforts did result in two documents: *Progress Toward Sustainable Development in the North* and *The Federal Sustainable Development Strategy for the North: Lessons Learned*.

The lessons-learned document identified some problem issues:

- Departments and agencies wanted their strategies to guide the northern strategy rather than have issues in the North guide their strategies.
- The working group had trouble getting enough resources.
- The turnover of working group members was disruptive.

It concluded that some departments needed to be more flexible in collaborating on a strategy for the North.

The 2004 Speech from the Throne committed the government to developing a new strategy for the North. This strategy is long overdue, and it is not clear how previous efforts will be used.

7.25 **Recommendation.** The Privy Council Office should assign the responsibility of providing sustainable development direction to departments to a specific body, and regularly monitor its progress. For the 2007 strategies, the body should develop

- a federal sustainable development strategy that involves ministers,
- guidance on structure and reporting,
- an easily accessible way to search the strategies, and
- an annual report on government-wide progress toward sustainable development.

Privy Council Office's response. The Privy Council Office (PCO) agrees with the recommendation for greater direction to assist departments in the development of their respective sustainable development strategies. To achieve this, the Prime Minister established the Ad Hoc Cabinet Committee on Sustainability and the Environment in October 2004, which is in turn supported by a committee of deputy ministers, as well as by PCO in its role as secretariat to the Cabinet. The Ad Hoc Committee has a clear mandate to deliver a federal sustainable development strategy that will guide the government's overall actions.

Each federal department is required under the *Auditor General Act* to develop its own sustainable development strategy, which ensures that ministers are accountable for tailoring strategies to the specific challenges of their departments. A federal sustainable development strategy, to be completed by mid 2006, will help ensure an overall federal approach to sustainable development and broad consistency of departmental goals.

7.26 **Senior management accountability needs strengthening.** In 2001, we found that senior management support was often missing. Leadership is important if departments are to develop effective strategies that respond meaningfully to government-wide direction. Under the *Auditor General Act*, ministers are accountable for tabling their strategies in Parliament. However, the accountability of senior management is not as explicit. We examined the performance agreements of some deputy ministers and found that they do not highlight accountability for strategies as either an ongoing or key commitment.

7.27 The Privy Council Office recognizes the importance of the performance management process in encouraging excellent performance by rewarding the achievement of results that are linked to government objectives, such as accountability for strategies.

7.28 **Recommendation.** The Privy Council Office should include in the annual performance agreements of deputy ministers the commitment to develop, implement, and monitor a sustainable development strategy that would achieve significant progress toward sustainable development. The Privy Council Office should also ensure that deputy ministers include the same provision in the annual performance agreements of assistant deputy ministers with significant sustainable development responsibilities.

Privy Council Office's response. Sustainable development continues to be specifically mentioned as a key objective in the performance contracts of those deputy ministers for whom sustainable development is a core element of their work. Deputy ministers are asked to translate this priority into the performance contracts of their assistant deputy ministers. More broadly, sustainable development is also considered part of the ongoing delegated responsibilities of all deputy ministers in managing their organizations, which is currently measured as part of the Performance Management Program for Deputy Ministers.

7.29 **Role of a new Environment Canada framework is unclear.** Environment Canada is developing the Competitiveness and Environmental Sustainability Framework. At the time of our audit, it was not clear

- what role the framework would play,
- how other departments would be involved,
- how the framework would involve departmental sustainable development strategies, and
- whether the framework would serve as a basis for the federal sustainable development strategy.

Environment Canada needs to clarify the role of the framework to avoid confusion and duplication of work on sustainable development.

Competitiveness and Environmental Sustainability Framework—The framework's central aim is to attain the highest environmental quality as a means of improving the quality of life of Canadians—enhancing the health and well-being of Canadians, preserving our natural environment, and advancing our long-term competitiveness. The framework will be a national framework developed in collaboration with the provinces and territories, industry, non-governmental organizations, Aboriginal groups, and other stakeholders. It will include shared goals and five pillars: decision making; information; science and technology; performance promotion and enforcement; and education and engagement.

7.30 **Recommendation.** Environment Canada should clearly articulate the role of the Competitiveness and Environmental Sustainability Framework, and how it will involve departmental sustainable development strategies.

Environment Canada's response. Agreed. The Competitiveness and Environmental Sustainability Framework (CESF) is a Government of Canada initiative, led by Environment Canada, to address in a coherent and integrated manner the environmental and sustainability challenges facing Canadians. In November 2004, the Ad Hoc Committee of Cabinet on Sustainability and the Environment endorsed the development of a national framework on environmental sustainability under the CESF approach. The Ad Hoc Committee will also oversee its implementation. The CESF will take an integrated and comprehensive approach to a full range of sustainability challenges, linking policy with action in such areas as climate change, environmental stewardship, health and environment, and sustainable communities.

The Deputy Ministers' Policy Committee on Environment and Sustainability, formed in the spring of 2005, has been charged with the further elaboration and implementation of a national framework on environmental sustainability, which will be implemented under the CESF approach. The Committee has also been charged with advancing federal house-in-order efforts, including the next generation of federal sustainable development strategies. Sustainable development strategies will be a key interdepartmental mechanism for implementation of the CESF, providing coordinated departmental delivery of the framework's "whole of government" approach. The

CESF will enable departmental sustainable development strategies to take a more integrated and collaborative approach based on common federal environment and sustainability priorities.

Guidance for federal departments on aligning sustainable development strategies with the CESF will be forthcoming from the Deputy Ministers' Policy Committee on Environment and Sustainability, in order to influence the preparation of the fourth round of strategies in 2006. The guidance will strengthen the sustainable development strategy process by building policy coherence across the federal environment and sustainability agenda and by strengthening accountability to Canadians through improved performance reporting.

7.31 **Lessons learned on the effectiveness of the strategies.** After auditing three rounds of strategies, we have found a number of areas for improvement (see Quality of the 2004 Strategies on page 16). The government needs to assess the impact and effectiveness of the previous strategies for achieving sustainable development before the 2007 strategies.

7.32 **Recommendation.** In order to improve the 2007 sustainable development strategies, the Privy Council Office should assign responsibility for a lessons-learned exercise on how to better use the strategies to achieve sustainable development, and act on the results.

Privy Council Office's response. The Privy Council Office (PCO) agrees that ongoing review and reform are key to ensuring government policies, programs, and operations are sustainable. Within this context, PCO considers the ongoing evaluation of departmental sustainable development strategies to be important.

In September 2004, the Deputy Minister of Environment Canada was asked to consider how such an exercise could be undertaken. An interdepartmental lessons-learned exercise was launched in December 2004 through the Interdepartmental Network on Sustainable Development Strategies, building on independently conducted departmental reviews, to identify best practices and key challenges.

With respect to the 2007 strategies, the Committee of Deputy Ministers on the Environment and Sustainability has been clearly mandated with advancing the next generation of federal sustainable development strategies. In this regard, the interdepartmental lessons-learned exercise will support the work of the Committee of Deputy Ministers on the Environment and Sustainability.

Conclusion

7.33 The federal government has taken a unique, decentralized approach to sustainable development with its departmental strategies. However, departments must contend with changing priorities and an ineffective governance structure for overseeing sustainable development strategies. For the 2004 strategies, departments received little approved direction. By not completing a federal strategy, the government has left departments without the direction needed to co-ordinate and bring coherence to the strategies. Also, the committee of deputy ministers that was responsible for the sustainable development strategies ceased activities, leaving no one in charge.

7.34 Departments will table their fourth strategy in December 2006, which makes this a critical time to act. If the government does not provide direction and leadership soon, departments will not have time to align their strategies with the government's plan for sustainable development and report on government-wide progress.

7.35 Most importantly, without a federal strategy, the government runs the risk of extending the sustainable development status quo for another three years. This will leave Canadians and parliamentarians without a clear idea of the government's overall plan for sustainable development, how it will get there, and what progress it has made.

Quality of the 2004 Strategies

Environment Canada's
Sustainable Development
Strategy 2004-2006
Sustainable Development
Strategy 2004-2006
Sustainable Development
Strategy 2004–2006
Environmentally Sustainable
Defence Activities
Sustainable Development
Strategy 2004–2006
Sustainable Development
Strategy: 2004-2006
On the Right Path Together

A sample of 2004 sustainable development strategies

What we expected for the strategies

7.36 Assessing and reporting on the quality of the 2004 sustainable development strategies helps parliamentarians and Canadians understand the government's sustainable development agenda. It also will help departments and agencies improve the planning of their 2007 strategy.

7.37 To assess the quality of the 2004 strategies, we examined the following expectations set out in the Commissioner's 2003 *Sustainable Development Strategies—Making a Difference*:

Role and fit. The role of the strategy and how it fits with other plans and strategies is clearly indicated.

Vision. A vision for sustainable development is included.

Goals and objectives. Goals and objectives clearly express the long-term results to be achieved.

Linking goals and objectives with targets and actions. Targets and actions are clearly linked to goals and objectives.

Clear targets. Targets are clear—they are clearly stated and understandable.

Measurable targets. Targets provide a deadline and a clear deliverable. We also examined whether the direction and the extent of intended change in expected results was indicated.

Lessons learned from 2001. Lessons learned from the 2001 strategies are included.

Changes in 2004. Changes between the 2001 and 2004 strategies are included.

We also looked at

Reporting. Do departments and agencies report annually in their performance report and in a more detailed supplementary annual progress report?

Our assessment of the quality of the 2004 strategies is presented in Exhibit 7.3.

Observations

There has been some improvement since the 2001 strategies

7.38 We found some areas where the 2004 strategies improved since the 2001 strategies:

- Most strategies now include the department's vision for sustainable development.
- They generally describe the role and fit of the strategy relative to other departmental plans more clearly.

We also noted in the 2004 strategies the following:

- Several departments are using innovative approaches to fit their strategies with other business planning exercises.
- Several strategies set out clear responsibility within the organization for commitments made.

These are all encouraging signs because of the strategic and accountability roles that the strategies play.

Did you know?

In 2004, the number of departments and agencies required to table strategies: **25**

By December 2006, the number required to table strategies: **more than 30**

New or reorganized departments include:

Canada Revenue Agency,
Canada Border Services Agency,
Canadian Firearms Centre,
Human Resources and Skills Development Canada,
Social Development Canada,
International Trade Canada,
Foreign Affairs Canada,
Public Health Agency of Canada, and
Public Service Human Resources Management Agency of Canada.

The quality of the strategies still varies widely

7.39 In comparing the 2004 strategies against our expectations, we did not find a "gold medal" strategy—every strategy had room for improvement, in particular

- The majority of strategies contain goals and objectives that focus more on process, activities, and outputs than on long-term results.
- Less than half of the strategies meet our expectation for measurable targets with clear deliverables and deadlines. They could be improved by clearly indicating the direction and the extent of intended change in expected results.

To be able to assess progress on commitments, these issues need to be addressed.

Departments report progress on strategy commitments regularly

7.40 All organizations report on progress toward their strategy commitments in their performance reports. More than two thirds produce supplementary strategy progress reports.

Exhibit 7.3 **Our assessment of the quality of the 2004 strategies**

Organization	Role and fit	Vision	Goals and objectives	Linking goals and objectives with targets and actions	Clear targets	Measurable targets	Lessons learned from 2001	Changes in 2004	Reporting	
									Performance report	Supplementary progress report
Agriculture and Agri-Food Canada	●	●	●	◐	◐	●	◐	◐	Yes	Yes
Atlantic Canada Opportunities Agency	○	◐	◐	●	●	◐	◐	◐	Yes	No
Canada Economic Development for Quebec Regions	○	◐	○	○	●	○	●	●	Yes	No
Canada Revenue Agency	◐	●	●	●	●	●	●	●	Yes	Yes
Canadian Heritage	●	◐	◐	◐	●	●	◐	●	Yes	No
Canadian International Development Agency	●	●	●	◐	◐	◐	●	◐	Yes	No
Citizenship and Immigration Canada	◐	○	◐	●	●	●	●	●	Yes	Yes
Environment Canada	●	●	◐	●	●	○	●	●	Yes	Yes
Finance Canada	●	◐	○	●	●	◐	◐	◐	Yes	Yes
Foreign Affairs Canada[1]	◐	●	◐	●	●	◐	●	◐	Yes	Yes
Health Canada	●	●	○	●	◐	○	●	●	Yes	Yes
Human Resources Development Canada[2]	○	○	◐	◐	◐	●	●	◐	Yes	No
Indian and Northern Affairs Canada	●	●	○	●	◐	●	●	●	Yes	Yes

● Meeting expectation ◐ Meeting expectation to some degree ○ Not meeting expectation

Notes

[1] In December 2003, the Department of Foreign Affairs and International Trade began operating as two departments: Foreign Affairs Canada and International Trade Canada. The 2004 strategy was developed when the departments were one. Individual strategies will be tabled in 2006.

[2] In December 2003, Human Resources Development Canada became two departments: Social Development Canada and Human Resources and Skills Development Canada. The 2004 strategy was developed when the departments were one. Individual strategies will be tabled in 2006.

Exhibit 7.3 **Our assessment of the quality of the 2004 strategies (continued)**

Organization	Role and fit	Vision	Goals and objectives	Linking goals and objectives with targets and actions	Clear targets	Measurable targets	Lessons learned from 2001	Changes in 2004	Reporting	
									Performance report	Supplementary progress report
Industry Canada	●	●	◐	●	◐	◐	●	●	Yes	Yes
Justice Canada	●	●	◐	◐	●	◐	●	●	Yes	No
National Defence	●	◐	◐	●	●	●	●	●	Yes	Yes
Natural Resources Canada	●	●	●	●	●	●	◐	◐	Yes	Yes
Parks Canada	●	●	◐	●	◐	◐	○	○	Yes	Yes
Public Safety and Emergency Preparedness Canada[3]	●	◐	◐	●	●	●	●	●		
Public Works and Government Services Canada	●	●	●	●	◐	◐	●	◐	Yes	Yes
Transport Canada	●	●	○	●	●	◐	●	●	Yes	Yes
Treasury Board Secretariat	◐	○	○	●	◐	◐	●	●	Yes	Yes
Veterans Affairs Canada	●	●	◐	●	●	◐	●	●	Yes	Yes
Western Economic Diversification Canada	●	●	◐	◐	●	●	●	●	Yes	Yes

● Meeting expectation ◐ Meeting expectation to some degree ○ Not meeting expectation

Notes

[3] The 2004 strategy was prepared for the Solicitor General Canada rather than Public Safety and Emergency Preparedness Canada. This department was created in December 2003 and now includes the Solicitor General of Canada, Office of Critical Infrastructure Protection and Emergency Preparedness (formerly part of National Defence), and the National Crime Prevention Centre (formerly part of the Department of Justice Canada).

Action on Strategy Commitments

7.41 In our *2004 Sustainable Development Strategy*, we committed to assess a greater number of departmental strategy commitments by involving other audit teams from across the Office of the Auditor General of Canada. The teams assessed the progress made by departments and agencies in meeting 10 commitments in their 2001 and 2004 strategies (Exhibit 7.4). The commitments were chosen based on significance, audit team judgment, and availability of audit staff. The results apply only to the 10 commitments and not to an organization's overall performance. Chapters 1, 4, and 6 of this Report also assess progress on other selected departmental strategy commitments.

Observations

Most departments have made satisfactory or some progress in meeting 10 strategy commitments

7.42 With one exception, we found that most departments and agencies have made progress on the commitments we examined. These are important first steps that need to be continued if real progress is to be achieved.

7.43 Our assessment of progress made by departments found the following:

- Agriculture and Agri-Food Canada has made satisfactory progress on its commitment to provide green procurement awareness training to staff.
- Canada Revenue Agency has made satisfactory progress in finalizing its environmental policy, which incorporates key environmental issues such as reducing the level of environmental risk associated with operations and implementing sound environmental practices.
- Environment Canada has made satisfactory progress in developing initiatives to improve media access to weather warnings, and thus to Canadians.
- Environment Canada has made some progress in improving Canadians' accessibility and understanding of high-impact weather warnings.
- Foreign Affairs Canada has made satisfactory progress in developing a plan to protect the health and safety of its overseas employees.

- Indian and Northern Affairs Canada has made some progress in developing a comprehensive federal community-planning strategy for First Nations.
- Industry Canada has made satisfactory progress in helping to develop an innovation strategy and action plan for how bio-products and bio-processes are used.
- National Defence has made progress in implementing training area management plans at selected sites.
- Treasury Board Secretariat has made satisfactory progress in maintaining and updating its federal contaminated sites inventory.

7.44 However, Transport Canada has made limited progress in meeting its 2001 commitment to identify discharges of effluent and waste at major Canadian ports. Consequently, discharges at the 19 Canada Port Authorities have not been determined. Sewage effluent and other chemical discharges, depending on the quantities released, can negatively affect aquatic ecosystems and human health.

Exhibit 7.4 **Progress made by departments and agencies in meeting commitments in their 2001 and 2004 strategies**

Commitment	Progress	Comments
Agriculture and Agri-Food Canada		
Delivery of green procurement awareness training to the integrated service managers community and all NCR Assets Management/Procurement Staff. (2004 strategy) **Target:** 2004	●	**Context.** The Department has policies in place to ensure that its procurement activities are in compliance with its environmental responsibilities. It identified the need for a training program so that personnel with purchasing responsibility would be able to recognize green procurement opportunities. **What we found.** The Department has made satisfactory progress in providing green procurement awareness training. It started training in 2003–04 with workshops but found that this was not the most effective approach. In 2004–05, the Department hired Public Works and Government Services Canada to provide a green procurement awareness course on-line. The on-line course was less expensive to administer and more flexible for staff to use. To date, green procurement awareness training has been provided to more than 120 staff. The Department plans to continue to offer this training. This commitment was carried over from the 2001 strategy. According to the Department, progress on this commitment was delayed because it made significant changes in its organization, including consolidating procurement activities and reviewing procurement activities and delivery models. However, the Department recommitted to achieving this commitment in its 2004 strategy.
Canada Revenue Agency		
Finalize CCRA* environmental policy. (2001 strategy) **Target:** 30 November 2001 *CCRA (Canada Customs and Revenue Agency), now the Canada Revenue Agency	●	**Context.** As a large government institution, the Agency recognizes that its activities affect the environment. Its vision is to have globally recognized best practices for sustainable development. **What we found.** The Agency's environmental policy has been finalized. It was approved by the board of management in December 2001 and was communicated to staff through a package, which included the new policy, a presentation for management use, and frequently asked questions. The environmental policy incorporates key environmental issues such as reducing the level of environmental risk associated with operations, implementing and promoting sound environmental management practices, and improving environmental performance. The Agency reassessed the policy after Canada Customs was separated from the Agency in December 2003 and found that it was still relevant. The Agency plans to review the policy by 31 December 2006.

● Satisfactory progress ◒ Some progress ○ Limited or no progress **X** Not assessed

Exhibit 7.4 **Progress made by departments and agencies in meeting commitments in their 2001 and 2004 strategies (continued)**

Commitment	Progress	Comments
Environment Canada		
Put proper mechanisms in place, through work with community partners, to make warning information accessible to individuals in time for them to take action. (2001 strategy) **Target:** None	●	**Context.** Canadians are vulnerable to high-impact weather events, such as the Red River flood in 1997, the ice storm in 1998, and Hurricane Juan in 2003. Environment Canada believes that improving access to weather warnings will help to ensure that Canadians can take appropriate steps to protect themselves and their businesses. The media is Environment Canada's primary partner for communicating warning information to the public. **What we found.** Environment Canada has made progress in developing initiatives to improve media access to weather warnings, for example a Web site for weather information and weather warning protocols for radio stations. However, the Department does not know the extent to which Canadians' access to warnings or warning time has improved.
Improve Canadians' accessibility to, and understanding of, high-impact weather warnings. (2004 strategy) **Target:** None	◓	**Context.** This commitment builds on the Department's previous commitment to make weather warnings more accessible. In addition to developing initiatives that improve media access to warning information, this commitment focusses on improving Canadians' understanding of high-impact weather warnings. **What we found.** The Department has not defined measurable targets. Consequently, it is unable to fully assess the extent to which the objectives of the commitment have been met. In addition, technical and policy issues, such as the need to foster voluntary participation by broadcasters, hinder progress on providing access to Canadians. However, Environment Canada is working on outreach initiatives, for example, an expansion of the Warning Preparedness Meteorologist Program, to improve how Canadians understand and react to high-impact weather.
Foreign Affairs Canada		
Develop a strategy in 2001 to address issues related to the health and welfare of employees and their families located at our missions abroad. (2001 strategy) **Target:** 2001	●	**Context.** The Department committed to developing a strategy to address the many health and safety challenges that its employees and families located at missions abroad face. For example, problems that may exist in Canada to some degree, such as air pollution, can be extreme in other countries. **What we found.** The Department set up a committee and it developed a strategy. The committee, along with its sub-committees, was made up of representatives from the Department and other departments, such as Health Canada, Citizenship and Immigration Canada, and Canadian International Development Agency. The strategy identifies issue areas, such as pollution, and sets out recommendations with expected results, rough costs, and which branch or department will implement the recommendations.

● Satisfactory progress ◓ Some progress ○ Limited or no progress **X** Not assessed

Exhibit 7.4 **Progress made by departments and agencies in meeting commitments in their 2001 and 2004 strategies (continued)**

Commitment	Progress	Comments
Indian and Northern Affairs Canada		
In cooperation with First Nations communities, to develop a federal comprehensive community-planning strategy. (2004 strategy) **Target:** April 2005	◓	**Context.** The federal government's current approach to funding and supporting First Nations communities is fragmented. It involves many government programs with different eligibility criteria, funding conditions, and reporting requirements. The Department believes that comprehensive community planning can help First Nations determine their priorities and increase their self-reliance. The Department originally made this commitment in its 2001 strategy with a target date of December 2003. **What we found.** The Department has made some progress. Over the past four years, it has created partnerships with First Nations and other departments, established pilot projects and working groups, and published a document on planning experiences in First Nations, Inuit, and Northern communities. To complete work on the federal strategy, the Department believes that it must first develop its own community-planning strategy, in co-operation with First Nations, which it plans to complete by December 2005. This strategy will be used for discussions with other federal departments. Consequently, it has revised its target date to December 2006. Given the work remaining, we feel this target date is optimistic.
Industry Canada		
Development of an innovation strategy and action plan for application of bio-products and bio-processes in support of sustainable development. (2001 strategy) **Target:** None	●	**Context.** Bio-products are products made from any type of organic material that is available on a renewable or recurring basis. They can include crops and trees, wood and wood wastes, and aquatic plants and grasses. An innovation strategy and action plan for bio-products is important because they can reduce the use of fossil fuels in the manufacturing and processing of many industrial products. Industry Canada considers that the document, *Innovation Roadmap on Bio-based Feedstocks, Fuels and Industrial Products*, is the strategy and action plan. The roadmap is a living process that allows industry players to work with the government and the academic sector to design their own long-term plans. **What we found.** The strategy and action plan has been finalized, published, and distributed. The initiative was led by industry, while the Department provided services to the "roadmap secretariat," for example, facilitation, contributing to the working groups, and writing. The document has been reviewed by industry members, to whom it is addressed. The strategy provides guidance on the targets of industry and lists action items that are prioritized in the short and long term. However, we observed that the accountability for each action item has not yet been assigned, and it is not clear how a specific action item relates to a specific target. We did not examine the sufficiency or comprehensiveness of the strategy and action plan.

● Satisfactory progress ◓ Some progress ○ Limited or no progress **X** Not assessed

Exhibit 7.4 **Progress made by departments and agencies in meeting commitments in their 2001 and 2004 strategies (continued)**

Commitment	Progress	Comments
National Defence		
Implement Training Area Management Plans at selected sites* by 31 March 2004. (2001 strategy) **Target:** 31 March 2004 *We selected the following sites for this audit: Gagetown, Nanoose, Petawawa, and Valcartier.	◓	**Context.** While military training activities can be damaging to the environment, the Canadian Forces needs to train under conditions that are as realistic as possible, and it has locations across the country for that purpose. In 2003, we reported that the Department needed to improve its environmental stewardship of the areas it uses for training and how it reports progress on strategy targets. National Defence has committed to reduce damage to the environment as a result of its training activities and make progress toward its goal of sustainable military training. **What we found.** The Department has made progress toward this sustainable development strategy commitment. It has produced plans for managing training areas at the sites we examined. We reviewed the progress reported on improving training area environmental management and found that action is being taken to address environmental concerns. The Department has stated that it is focussing on high-priority items, but we were not able to conclude that areas addressed were the high-priority areas, which is one measure the Department uses to report progress.
Transport Canada		
Transport Canada will identify third party discharges of effluent and waste at Canadian ports by 2001/2002. (2001 strategy) **Target:** 2001–02		**Context.** It is important to reduce the impact of discharges of effluents and liquid waste to protect aquatic and terrestrial ecosystems and to prevent exposure by humans to dangerous substances. Transport Canada wanted to adopt measures to prevent discharges, prepare for such situations, and take action as necessary. The Department also wanted to adopt measures that reduce or eliminate regular discharges of effluents and waste.
Objective 1 Work with the Association of Canadian Port Authorities (ACPA) to identify discharges at ports by requesting an inventory of existing environmental problems on Crown lands, by 2001/2002. **Target:** 2001–02	○	**Context.** The *Canada Marine Act* established 19 Canada Port Authorities. These ports are essential links in Canada's domestic and international trade. They operate as independent entities and manage any federal property assets within the ports (i.e., Crown land) on behalf of Transport Canada. **What we found.** An inventory of discharges has not yet been compiled. Transport Canada has indicated that it tried to work with the Association of Canadian Port Authorities (ACPA) to obtain an inventory of the discharges in the 19 major Canadian ports. The ACPA has indicated that it does not have the necessary resources to conduct such an inventory. No further action has been taken by Transport Canada.
Objective 2 Work closely with the ACPA (Environment Committee) to develop work plans, with timelines, to address environmental problems and determine the role of TC in the remediation process, by 2002/2003. **Target:** 2002–03	X	**Context.** Objective 2 was not evaluated because it requires objective 1 to be completed.

● Satisfactory progress ◓ Some progress ○ Limited or no progress X Not assessed

Exhibit 7.4 **Progress made by departments and agencies in meeting commitments in their 2001 and 2004 strategies (continued)**

Commitment	Progress	Comments
Objective 3 Prepare an inventory of problematic sites for TC-owned ports, by reviewing existing audits and environmental baseline studies, by 2001/2002. **Target:** 2001–02	◓	**Context.** Under its National Marine Policy, Transport Canada is transferring its regional/local ports to other operators. On 31 March 2002, 82 regional/local ports and 34 remote ports across Canada were still under the responsibility of the Department. **What we found.** Transport Canada identified the discharge sites in almost all of its ports by March 2002. Information on location, ownership, and effluent type was collected. Based on its knowledge of the 116 ports and on the results of a detailed March 2003 study involving 5 ports, Transport Canada determined that it did not have significant discharge problems. Although this is a good initiative, this does not guarantee that ports not studied in detail are free of problem situations.
Objective 4 Develop a monitoring framework for TC-owned ports that will include project identification, analysis and timelines for remediation, in 2002/2003. **Target:** 2002–03	X	**Context.** Objective 4 was not evaluated because it requires objective 3 to be completed.
Treasury Board Secretariat		
Maintain and update the federal contaminated sites inventory. (2001 strategy) **Target:** Ongoing	●	**Context.** Thousands of federal sites have been assessed and identified as contaminated by the federal government, tenants on its lands, and others over the last decade. If not properly managed, contamination of soil and water on federal sites can pose a significant threat to human health and the environment. The Treasury Board Secretariat believes that improving information will enhance the management of contaminated sites. **What we found.** The Secretariat maintains and updates its federal contaminated sites inventory using internal standards for input and quality control. Since October 2002, the number of sites in the inventory has nearly doubled. Progress has been made to ensure proper updates of the inventory; however, the database is incomplete and is considered a work in progress. All suspected sites have not been assessed and are not included in the inventory. In addition, the Secretariat does not have a formal monitoring process to ensure that the inventory is updated on a timely basis. The Secretariat has told us that it is improving the inventory's systems and processes. New developments, such as senior level certification on the accuracy and completeness of information, will improve the inventory.

● Satisfactory progress ◓ Some progress ○ Limited or no progress **X** Not assessed

Action on International Commitments

7.45 The 2002 World Summit on Sustainable Development took place in Johannesburg, South Africa, and brought together nearly 200 nations to address global sustainable development issues. The key outcome was the Johannesburg Plan of Implementation, which outlined the commitments made by nations. The Government of Canada agreed to implement its part of the Plan. We examined action on six international commitments in the areas of oceans management, biodiversity, and sustainable development strategies (see chapters 1 and 3 of this Report, and paragraphs 7.10 to 7.12 of this chapter for more information).

Observations

The government does not have an action plan for 2002 World Summit commitments

7.46 Shortly after the Summit, we recommended that the federal government develop a plan to ensure that Canada's commitments were met. The government took some promising first steps. Its Earth Summit Secretariat, which co-ordinated Canada's participation in the Summit, worked with departments to identify a manageable set of federal commitments to monitor and report on. In early 2003, a draft list was prepared, containing 46 commitments selected from the over 600 in the Plan of Implementation. Lead and implementing departments were identified for each commitment.

7.47 However, the draft list was never finalized. The Environment and Sustainable Development Coordinating Committee was responsible for overseeing the implementation of Canada's commitments.

7.48 In the absence of a federal action plan on World Summit commitments, it was up to each department to determine its responsibilities for delivering on commitments relevant to its mandate. Only four departments—Canadian International Development Agency, Foreign Affairs Canada, Department of Finance, and Industry Canada—incorporated commitments into their strategies in a meaningful way—they linked Summit commitments to their activities. The other departments either did not clearly specify the action they would take, or did not mention the Summit at all.

7.49 Without a federal plan, it is difficult for parliamentarians and Canadians to know what the government intends to do to meet its 2002 World Summit sustainable development commitments, and what progress it has achieved.

7.50 Because progress is slow in some areas and there is no information on progress in others, the federal government risks not meeting three of the six commitments we examined:

- establishing a national sustainable development strategy by 2005,
- significantly reducing the rate of biodiversity loss by 2010, and
- establishing representative networks of marine protected areas by 2012.

Did you know?

The United Kingdom published a "Table of Commitments," which sets out its World Summit priorities and the responsible departments. Its 2005 sustainable development strategy sets out the government's international priorities for sustainable development.

7.51 We have rated progress on each commitment (Exhibit 7.5 provides more details). This is challenging without a government-wide plan that would establish clear expectations for each commitment.

Exhibit 7.5 **Progress made by departments on 2002 World Summit commitments**

Commitment	Progress	Comments
Sustainable development strategies **Who we audited:** Privy Council Office and the Environment and Sustainable Development Coordinating Committee		
Formulate and elaborate national strategies and begin their implementation by 2005.	○	**Context.** Canada first committed to develop a national sustainable development strategy in 1992 at the Earth Summit. In 1995, it amended the *Auditor General Act* to require the ministers of 25 departments and agencies to table a sustainable development strategy in Parliament every three years, in line with this commitment. The federal government has promised to develop an overall federal strategy, although it recognizes that this would not constitute a national strategy. **What we found.** The government has not developed a federal strategy. It will not be able to meet its commitment for a national strategy by 2005. For more information, see paragraphs 7.10 to 7.12 of this chapter.
The Canadian Biodiversity Strategy **Who we audited:** Environment Canada		
Achieve a significant reduction in the rate of loss of biological diversity by 2010.	X	**Context.** Biological diversity refers to the variety of life in all its forms—the foundation for the continued existence of a healthy planet and well-being of its inhabitants. **What we found.** While the government is working toward such reporting and reporting is taking place in various sectors, there is no overall picture of the state of biodiversity in Canada. By not knowing the state of its own biodiversity or how it is changing over time, the federal government is limited in its ability to help conserve biodiversity and use it sustainably. Consequently, the federal government cannot demonstrate it is meeting its commitment, and we are unable to rate progress. For more information, see Chapter 3 of this Report.

● Satisfactory progress ◓ Some progress ○ Limited or no progress **X** Not assessed

Exhibit 7.5 **Progress made by departments on 2002 World Summit commitments (continued)**

Commitment	Progress	Comments
Oceans management **Who we audited:** Fisheries and Oceans Canada		
Encourage the application, by 2010, of the ecosystem approach to the management of oceans.	◓	**What we found.** The Department is developing an ecosystem approach, which is a key component of its integrated management planning. It is testing some aspects of the approach. For more information, see Chapter 1 of this Report.
Establish marine protected areas consistent with international law and based on science, including representative networks, by 2012.	◓	**Context.** Two other departments that we did not audit have responsibilities for marine protected areas. Parks Canada has authority to protect places that represent Canada's marine regions, and Environment Canada has authority to designate Marine Wildlife Areas to protect habitat. **What we found.** The Department has designated 2 marine protected areas under the *Oceans Act*, and has identified 11 areas of interest as potential marine protected areas. But, we are concerned that Canada is in danger of not meeting the commitment to establish representative networks of marine protected areas by 2012 for the following reasons: • delays in developing a federal marine protected areas strategy, • no plan as to how the commitment will be met, and • uncertainties about funding. For more information, see Chapter 1 of this Report.
Promote integrated, multidisciplinary and multisectoral coastal and ocean management at the national level.	◓	**What we found**. The *Oceans Act*, Canada's Oceans Strategy, and Canada's Oceans Action Plan promote an integrated management approach. However, moving from a definition of integrated management to implementing it has been difficult. The Department is leading integrated management planning initiatives in five large ocean areas. For more information, see Chapter 1 of this Report.
Implement the work programme arising from the Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity of the Convention on Biological Diversity.	◓	**What we found.** The *Oceans Act*, Canada's Oceans Strategy, and Canada's Oceans Action Plan are consistent with the Jakarta Mandate. Key elements, including integrated management, ecosystem approach, and marine protected areas have been reported in the previous three commitments. For more information, see Chapter 1 of this Report.

● Satisfactory progress ◓ Some progress ○ Limited or no progress **X** Not assessed

About the Chapter

Government-wide direction

Objectives. We looked at whether the federal government, in setting government-wide priorities for sustainable development strategies, provided sufficient direction to departments to reflect the priorities. We also looked at whether departments had reflected the priorities in their 2004 strategies commitments:

- Did central agencies and interdepartmental committees take adequate steps to ensure that departments develop strategies to reflect the government-wide priorities identified for them?
- Did the efforts made by selected departments to respond to direction on the three government priorities—federal role on fresh water, implementing 2002 World Summit commitments, and greening government operations—significantly contribute to sustainable development?

Scope and approach. We examined the process for developing and providing direction, whether departments were able to respond to the direction, and who was accountable for ensuring that strategies reflected the direction. We focussed on the role of two central agencies—the Privy Council Office and Treasury Board Secretariat—and interdepartmental committees, notably the Environment and Sustainable Development Coordinating Committee. We examined how six departments—Environment Canada, Foreign Affairs Canada, Health Canada, Indian and Northern Affairs Canada, Industry Canada, and Natural Resources Canada—responded to the direction.

We interviewed staff from the departments involved; assessed the quality of direction; analysed the strategies; reviewed committee mandates, meeting documentation, and performance contracts; and interviewed officials from the government of the United Kingdom on their approach to sustainable development

Criteria. We expected that

- There was clear accountability for ensuring that strategies reflected the government-wide priorities and guidance.
- The government-wide priorities were coherent and communicated to departments at an early stage in the development of the strategies.
- Departments with key responsibilities for the priorities received guidance from central agencies or interdepartmental committees on interpreting and applying the priorities.
- Key departments considered the priorities when they developed their strategies.
- The strategies of the selected departments contained commitments that were meaningful and significantly contributed to sustainable development in their priority areas and mandate.

Quality of the 2004 strategies

Objective. We examined the extent to which the 2004 strategies met selected expectations from the Commissioner's *Sustainable Development Strategies—Making a Difference*.

Scope and approach. We assessed 24 of the 28 strategies tabled in the House of Commons in 2004. Four strategies were tabled voluntarily and were excluded from our audit. Fisheries and Oceans Canada failed to meet its requirement to table a strategy. Instead, the Department tabled a progress report. In March 2005, the Department tabled its strategy. Given the delay, we did not assess its strategy.

We sent departments and agencies the results of our assessment and met with those who wanted to discuss our findings. Findings are reported by department or agency.

Criteria. In March 2003, the Commissioner published her expectations for the 2004 strategies in *Sustainable Development Strategies—Making a Difference*, a document endorsed by the government and developed in consultation with departments. The quality assessment of the 2004 strategies focussed on the following expectations:

Role and fit. The role of the strategy and how it fits with other plans and strategies is clearly indicated.

Vision. A vision for sustainable development is included.

Goals and objectives. Goals and objectives clearly express the long-term results to be achieved.

Linking goals and objectives with targets and actions. Targets and actions are clearly linked to goals and objectives.

Clear targets. Targets are clear—they are clearly stated and understandable.

Measurable targets. Targets provide a deadline and a clear deliverable. We also examined whether the direction and extent of intended change in expected results was indicated.

Lessons learned from 2001. Lessons learned from the 2001 strategies are included.

Changes in 2004. Changes between the 2001 and 2004 strategies are included.

Based on our assessment, we assigned one of three grades—meeting expectation, meeting expectation to some degree, and not meeting expectation. Because strategies contain many goals, objectives, and targets, a strategy may meet expectation even if not all the goals, objectives, and targets met the expectations.

We also looked at:

Reporting. Do departments and agencies report annually in their performance report and in a more detailed supplementary progress report?

Action on strategy commitments

Objective. We assessed the action of nine departments and agencies in implementing 10 commitments in their 2001 and 2004 strategies. Chapters 1, 4, and 6 of this Report examined other strategy commitments.

Scope and approach. As part of our annual monitoring of strategy commitments, we evaluated the following nine organizations: Agriculture and Agri-Food Canada, Canada Revenue Agency, Environment

Canada, Foreign Affairs Canada, Indian and Northern Affairs Canada, Industry Canada, National Defence, Transport Canada, and Treasury Board Secretariat.

We looked at 10 commitments, 1 from each organization, except for Environment Canada for which we chose 2 commitments.

We are piloting this approach for this Report and will continue to use it in subsequent years. The commitments were chosen based on significance, audit team judgment, and availability of audit staff.

Audit teams from across the Office of the Auditor General conducted the work. For example, the audit team responsible for Transport Canada audited Transport Canada's commitment. We assessed each organization's response to a questionnaire and its key documents, and where required, interviewed key officials. The work was conducted to an audit level of assurance.

Criteria. To assess the progress made by the departments and agencies, we expected that they were

- effectively managing the implementation of their commitments; and
- meeting their commitments—they were doing what they said they would.

Based on our assessment, we assigned one of three ratings—satisfactory progress, some progress, and limited or no progress. In some cases, we were unable to assess and assign a rating.

In determining the rating, we considered the following elements:

- the requirements of the commitment,
- the complexity of the commitment,
- the time that elapsed since the commitment was made,
- whether actions have led to demonstrable results, and
- any significant changes in circumstances that have occurred since the commitment was made.

The results apply only to the 10 commitments and not to an organization's overall performance.

Action on international commitments

Objective. We assessed the action of three departments and the Environment and Sustainable Development Coordinating Committee on six international commitments made at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa.

Scope and Approach. As part of our assessment, we evaluated the following topics and departments:

- Oceans management—Fisheries and Oceans Canada
- Canadian Biodiversity Strategy—Environment Canada
- Sustainable development strategies—Privy Council Office and the Environment and Sustainable Development Coordinating Committee.

Criteria. To assess the progress made by the departments and agency, we expected that they were:

- effectively managing the implementation of their commitments; and
- meeting their commitments—they were doing what they said they would.

Based on our assessment, we assigned one of three ratings—satisfactory progress, some progress, and limited or no progress. In some cases, we were unable to assess and assign a rating.

In determining the rating, we considered the following elements:

- the requirements of the commitment,
- the complexity of the commitment,
- the time that elapsed since the commitment was made,
- whether actions have led to demonstrable results, and
- any significant changes in circumstances that have occurred since the commitment was made.

The results apply only to the commitments and not to an organization's overall performance.

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Appendix List of recommendations

The following is a list of recommendations found in Chapter 7. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
Government-wide direction	
7.25 The Privy Council Office should assign the responsibility of providing sustainable development direction to departments to a specific body, and regularly monitor its progress. For the 2007 strategies, the body should develop • a federal sustainable development strategy that involves ministers, • guidance on structure and reporting, • an easily accessible way to search the strategies, and • an annual report on government-wide progress toward sustainable development. **(7.16-7.24)**	The Privy Council Office (PCO) agrees with the recommendation for greater direction to assist departments in the development of their respective sustainable development strategies. To achieve this, the Prime Minister established the Ad Hoc Cabinet Committee on Sustainability and the Environment in October 2004, which is in turn supported by a committee of deputy ministers, as well as by PCO in its role as secretariat to the Cabinet. The Ad Hoc Committee has a clear mandate to deliver a federal sustainable development strategy that will guide the government's overall actions. Each federal department is required under the *Auditor General Act* to develop its own sustainable development strategy, which ensures that ministers are accountable for tailoring strategies to the specific challenges of their departments. A federal sustainable development strategy, to be completed by mid 2006, will help ensure an overall federal approach to sustainable development and broad consistency of departmental goals.

Recommendation	Department's response
7.28 The Privy Council Office should include in the annual performance agreements of deputy ministers the commitment to develop, implement, and monitor a sustainable development strategy that would achieve significant progress toward sustainable development. The Privy Council Office should also ensure that deputy ministers include the same provision in the annual performance agreements of assistant deputy ministers with significant sustainable development responsibilities. **(7.26-7.27)**	Sustainable development continues to be specifically mentioned as a key objective in the performance contracts of those deputy ministers for whom sustainable development is a core element of their work. Deputy ministers are asked to translate this priority into the performance contracts of their assistant deputy ministers. More broadly, sustainable development is also considered part of the ongoing delegated responsibilities of all deputy ministers in managing their organizations, which is currently measured as part of the Performance Management Program for Deputy Ministers.
7.30 Environment Canada should clearly articulate the role of the Competitiveness and Environmental Sustainability Framework, and how it will involve departmental sustainable development strategies. **(7.29)**	Agreed. The Competitiveness and Environmental Sustainability Framework (CESF) is a Government of Canada initiative, led by Environment Canada, to address in a coherent and integrated manner the environmental and sustainability challenges facing Canadians. In November 2004, the Ad Hoc Committee of Cabinet on Sustainability and the Environment endorsed the development of a national framework on environmental sustainability under the CESF approach. The Ad Hoc Committee will also oversee its implementation. The CESF will take an integrated and comprehensive approach to a full range of sustainability challenges, linking policy with action in such areas as climate change, environmental stewardship, health and environment, and sustainable communities. The Deputy Ministers' Policy Committee on Environment and Sustainability, formed in the spring of 2005, has been charged with the further elaboration and implementation of a national framework on environmental sustainability, which will be implemented under the CESF approach. The Committee has also been charged with advancing federal house-in-order efforts, including the next generation of federal sustainable development strategies. Sustainable development strategies will be a key interdepartmental mechanism for implementation of the CESF, providing co-ordinated departmental delivery of the framework's "whole of government" approach. The CESF will enable departmental sustainable development strategies to take a more

Recommendation	Department's response
	integrated and collaborative approach, based on common federal environment and sustainability priorities. Guidance for federal departments on aligning sustainable development strategies with the CESF will be forthcoming from the Deputy Ministers' Policy Committee on Environment and Sustainability, in order to influence the preparation of the fourth round of strategies in 2006. The guidance will strengthen the sustainable development strategy process by building policy coherence across the federal environment and sustainability agenda and by strengthening accountability to Canadians through improved performance reporting.
7.32 In order to improve the 2007 sustainable development strategies, the Privy Council Office should assign responsibility for a lessons-learned exercise on how to better use the strategies to achieve sustainable development, and act on the results. **(7.31)**	The Privy Council Office (PCO) agrees that ongoing review and reform are key to ensuring government policies, programs, and operations are sustainable. Within this context, PCO considers the ongoing evaluation of departmental sustainable development strategies to be important. In September 2004, the Deputy Minister of Environment Canada was asked to consider how such an exercise could be undertaken. An interdepartmental lessons-learned exercise was launched in December 2004 through the Interdepartmental Network on Sustainable Development Strategies, building on independently conducted departmental reviews, to identify best practices and key challenges. With respect to the 2007 strategies, the Committee of Deputy Ministers on the Environment and Sustainability has been clearly mandated with advancing the next generation of federal sustainable development strategies. In this regard, the interdepartmental lessons-learned exercise will support the work of the Committee of Deputy Ministers on the Environment and Sustainability.

Report of the
Commissioner of the Environment and Sustainable Development
to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions

2005

Report of the

Commissioner of the Environment and Sustainable Development

to the House of Commons

Chapter 8

Environmental Petitions

- Annual Report on Petitions
- Insurance for Nuclear Operators
- Guidelines for Listing Species at Risk
- Impacts of Hog Farming

Office of the Auditor General of Canada

The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.

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Chapter

8

Environmental Petitions

- Annual Report on Petitions
- Insurance for Nuclear Operators
- Guidelines for Listing Species at Risk
- Impacts of Hog Farming

The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.

Table of Contents

Main Points 1

Introduction 3

Focus of the chapter 4

Annual report on petitions received 5

Using the petitions process 5

Maintaining the integrity of the process 5

Audits of petition responses 9

Insurance for nuclear operators 10

Accident insurance requirements at nuclear facilities are not in keeping with international standards 10

Guidelines for listing species at risk 12

Environment Canada expects guidelines to be in place in 2006 12

Impacts of hog farming 15

Environment Canada cannot yet demonstrate that its compliance promotion and enforcement efforts at hog farms are effective 17

Agriculture and Agri-Food Canada's strategic approach to reducing the environmental impacts of hog farming is not clear 20

Agriculture and Agri-Food Canada is not effectively communicating or monitoring its beneficial management practices 23

Conclusion 27

About the Chapter 29

Appendices

A. Petitions activity (1 July 2004 to 30 June 2005) 31

B. List of recommendations 44

Environmental Petitions

Main Points

What we examined

This is the annual report of the Commissioner of the Environment and Sustainable Development to Parliament on the environmental petitions process as required by the *Auditor General Act*. It reports on new petitions received between 1 July 2004 and 30 June 2005.

We audited selected responses to previous environmental petitions to determine whether action had been taken by Natural Resources Canada to update the *Nuclear Liability Act*, by Environment Canada to establish guidelines for designating a species at risk, and by Agriculture and Agri-Food Canada and Environment Canada to reduce the environmental impacts of hog farming.

Why it's important

The environmental petitions process allows Canadians to formally present their concerns about environmental issues to federal ministers and obtain a response. The process allows both citizens and organizations to ask that ministers investigate environmental problems, explain federal policy, or examine the enforcement of environmental legislation.

Petitions have resulted in commitments by ministers and action by departments on environmental issues. For the petitions process to work effectively for Canadians, petitioners need to clearly present the issues and questions that concern them and make sure their facts are correct. Departments must respond to petitions within 120 days and ensure that the responses clearly address all issues raised in the petitions.

Monitoring and auditing petition responses allows us to further examine issues that Canadians have raised and that may not have otherwise been brought to our attention. Through these audits, we assess whether federal ministers are meeting commitments to act on issues raised in petitions.

What we found

- **Report on petitions process.** Statements and commitments made by federal ministers address important issues raised by Canadians through the petitions process. However, in those responses we audited this year, we found that progress on addressing the issues has been slow.

- **Insurance for nuclear operators.** In his response to two petitions, the Minister of Natural Resources committed to updating the *Nuclear Liability Act* to increase the mandatory amount of insurance carried by operators of nuclear facilities to compensate those who may suffer injury or damage in the event of an accident. However, the Act has not yet been revised. As a result, insurance coverage in Canada remains at a level established almost 30 years ago and is considerably lower than the coverage in other major industrialized nations.
- **Guidelines for listing species at risk.** The *Species at Risk Act* was introduced in 2002 to protect and recover species at risk. In response to a petition, the Minister of the Environment committed to establishing guidelines for deciding which species to protect by designating them at risk. Environment Canada has indicated that these guidelines will not be in place until 2006. In the meantime, decisions are being made without the benefit of guidelines intended to make the government's decision-making process more consistent and transparent.
- **Impacts of hog farming.** As a result of two petitions, we audited actions by Agriculture and Agri-Food Canada and Environment Canada to reduce the environmental impacts of hog farming. We found that the departments do not know if their programs and activities are reducing those impacts. For example, Environment Canada cannot yet demonstrate that its efforts have increased compliance with the pollution prevention provisions of the *Fisheries Act*. Agriculture and Agri-Food Canada has yet to clarify its strategic approach to address the environmental impacts of hog farming. Although the Department has made progress in measuring the impacts of agriculture on the environment, it is not effectively communicating or monitoring the implementation of its beneficial management practices for hog farming.

The departments have responded. Agriculture and Agri-Food Canada, Environment Canada, and Natural Resources Canada have accepted our recommendations. Their responses, which follow the recommendations in the chapter, indicate the actions departments will take and when they will be undertaken.

Introduction

8.1 In his environmental petition, Ontario resident Tom Edwards claims that he has been unable to work since 18 May 2001. On that day, while working in a shipping department of a private company, he cut the packing tape securing a pallet that had arrived from Hong Kong. According to Mr. Edwards, he was covered by Dinex, a toxic pesticide not registered for use in Canada, and it affected his health. He stated that the container holding the pallet was not properly marked. This incident prompted Mr. Edwards to submit a petition to our Office (petition 126A) to examine whether chemicals not registered for use in Canada were shipped in a container that was not properly marked. We forwarded his petition to Transport Canada and Health Canada.

Spilled substance from a foreign shipping container on day of incident

Source: Tom Edwards

8.2 In its response, Transport Canada stated, among other things, that if a container is fumigated with dangerous goods, entryways through which a person can enter a container must be marked with a fumigation sign. The Department informed Mr. Edwards that to conduct an investigation into the issue, it would need positive identification of the powder in question. The Minister of Health acknowledged the seriousness of the incident and informed the petitioner that the Workplace Safety and Insurance Board or the Office of the Worker Adviser in Ontario may have additional information and advice.

8.3 On 4 March 2005, Mr. Edwards submitted a follow-up petition (petition 126B) with a laboratory report indicating that the chemical that he was exposed to was Dinex. In this petition, Mr. Edwards further questioned the procedures in place to prevent a similar incident from occurring and requested other actions from departments. We forwarded his petition to the Canada Border Services Agency, Health Canada, Human Resources and Skills Development Canada, and Transport Canada. Their responses will be available on our Web site once we receive them (www.oag-bvg.gc.ca/domino/petitions.nsf/english).

8.4 This is just one example of an issue raised in an environmental petition. Any Canadian resident, organization, business, or municipality can submit an environmental petition to the Auditor General of Canada and receive a response from the responsible federal minister(s). Petitions must address environmental issues involving the federal government. Exhibit 8.1 provides more information on the petitions process and the role of the Commissioner of the Environment and Sustainable Development.

Focus of the chapter

8.5 The purpose of this chapter is to report to Parliament and Canadians on the use of the petitions process and on our monitoring of petitions received between 1 July 2004 and 30 June 2005. We also report on findings from three audits that we conducted based on selected petition responses.

Exhibit 8.1 **The environmental petitions process and the role of the Commissioner of the Environment and Sustainable Development**

The environmental petitions process was established under the *Auditor General Act* in 1995. It provides a way for Canadians to personally take action on environmental issues that they care about. The federal government is the focus of the petitions process.

The Commissioner of the Environment and Sustainable Development oversees the petitions process on behalf of the Auditor General.

Starting a petition	The process starts when a resident of Canada submits a petition in writing to the Auditor General of Canada. The process is open to individuals, organizations, municipalities, or corporations.	
Processing a petition	The Commissioner's petitions team reviews incoming petitions to determine if they meet the requirements set out in the *Auditor General Act*. A petition must be submitted by a Canadian resident and deal with an environmental issue in the context of sustainable development that is the responsibility of a federal department or agency subject to the petitions process.	
	If the petition meets the requirements of the legislation, the petitions team determines which federal departments and agencies are responsible for the issue(s) in the petition and sends it to the responsible minister(s).	If the petition is not accepted, the petitioner will be contacted. If the petition is incomplete or unclear, the petitioner will be asked to re-submit it.
Responding to a petition	Upon receipt of a petition, a minister is required to do the following: • send out an acknowledgement letter to the petitioner and the Commissioner within 15 days, and • provide a substantive reply to the petitioner and Commissioner within 120 days of receipt.	

Ongoing petitions activities

Monitoring	Reporting	Posting on the Web	Auditing
The Commissioner monitors acknowledgement letters and replies from ministers.	The environmental petitions chapter allows the Commissioner to report to the House of Commons on the number of petitions received, their subject matter and status, and information on departmental compliance with statutory timelines.	The Commissioner posts petitions, replies, and summary information on the Web (www.oag-bvg.gc.ca/domino/petitions.nsf/english).	Petition responses are examined as part of audits on environmental and sustainable development issues.

Annual report on petitions received

Using the petitions process

Thirty-one departments and agencies are subject to the environmental petitions process

Agriculture and Agri-Food Canada
Atlantic Canada Opportunities Agency
Canada Border Services Agency
Canada Economic Development for Quebec Regions
Canada Firearms Centre
Canada Revenue Agency
Canadian Heritage
Canadian International Development Agency
Citizenship and Immigration Canada
Department of Finance Canada
Department of Justice Canada
Environment Canada
Fisheries and Oceans Canada
Foreign Affairs Canada
Health Canada
Human Resources and Skills Development Canada
Indian and Northern Affairs Canada
Industry Canada
International Trade Canada
National Defence
Natural Resources Canada
Parks Canada Agency
Public Health Agency of Canada
Public Safety and Emergency Preparedness Canada
Public Service Human Resources Management Agency of Canada
Public Works and Government Services Canada
Social Development Canada
Transport Canada
Treasury Board of Canada Secretariat
Veterans Affairs Canada
Western Economic Diversification Canada

8.6 We received 37 petitions this year. The petitions came from most parts of the country (Exhibit 8.2), and this is the first year that we received a petition from Nunavut (petition 131). This petitioner claims that Indian and Northern Affairs Canada has not established a general environmental monitoring program in Nunavut, as required under the terms of the Nunavut Land Claims Agreement. Most petitions continue to come from individual Canadians, as well as small local or regional organizations and grass-roots coalitions. We noted an increase in petitions dealing with Aboriginal issues over the last two years.

8.7 An overview of petitions activity during our reporting period (1 July 2004 to 30 June 2005) is in Appendix A. It includes summaries of all new petitions received since July 2004. Petitions and responses are posted in our Petitions Catalogue on our Web site (www.oag-bvg.gc.ca/domino/petitions.nsf/english) after they are tabled in Parliament.

Maintaining the integrity of the process

8.8 It is the Commissioner's responsibility to monitor petition responses from departments and agencies. To do so, we consider the following questions:

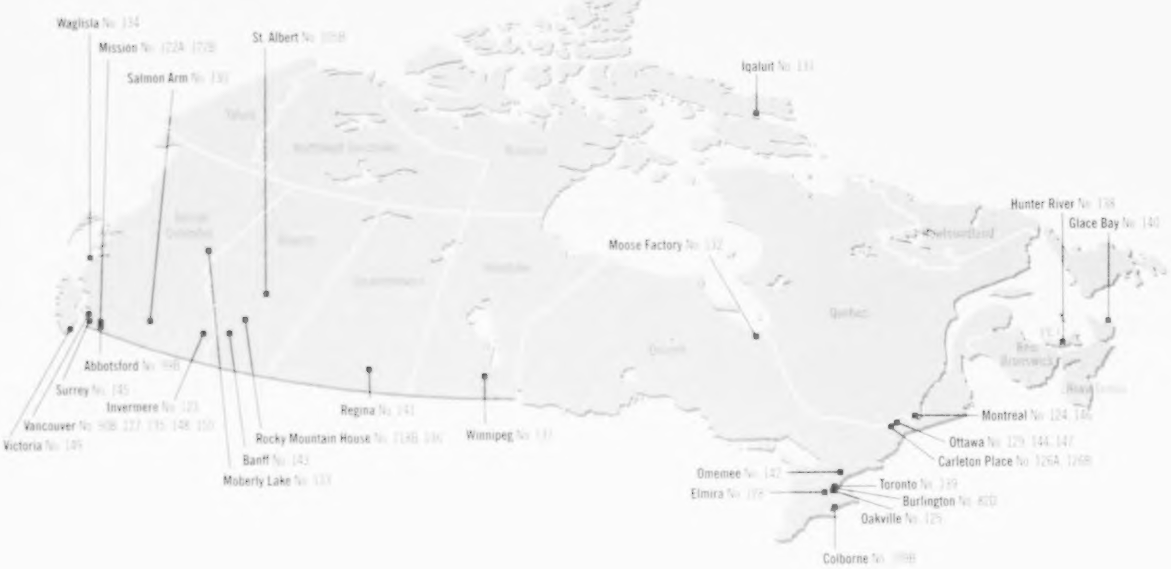
- Are departments responding to petitioners on time?
- Are departments providing a substantive response that clearly addresses the questions and other requests made in petitions?

8.9 **Most departments are responding on time.** Departments are generally meeting the requirements of the *Auditor General Act* and responding to petitions within the mandatory timeline of 120 days (Exhibit 8.3). However, there are some exceptions, including Health Canada, which was late in responding to three out of seven petitions this year. Last year we reported that Indian and Northern Affairs Canada was not meeting the deadlines. The Department has since responded to all outstanding petitions from last year and set in place an internal protocol for ensuring timely responses to petitions. We are pleased to note that this year, Indian and Northern Affairs Canada has responded to all petitions on time.

Petitions came from many parts of the country (1 July 1999 to 30 June 2000)

Petition No.	Subject	Petition No.	Subject
[illegible]	[illegible]	[illegible]	[illegible]

Exhibit 8.2 Petitions come from many parts of the country (1 July 2004 to 30 June 2005)


Waglisla No. 134
Mission No. 122A, 122B
Salmon Arm No. 130
St. Albert No. 105B
Iqaluit No. 131
Hunter River No. 138
Glace Bay No. 140
Moose Factory No. 132
Abbotsford No. 99B
Surrey No. 145
Invermere No. 123
Vancouver No. 90B, 127, 135, 148, 150
Victoria No. 149
Rocky Mountain House No. 118B, 136
Banff No. 143
Moberly Lake No. 133
Regina No. 141
Winnipeg No. 137
Montreal No. 124, 146
Ottawa No. 129, 144, 147
Carleton Place No. 126A, 126B
Omemee No. 142
Elmira No. 128
Toronto No. 139
Burlington No. 82D
Oakville No. 125
Colborne No. 109B

Petition No.	Subject
82D	Follow-up petition on the Red Hill Valley Expressway in Hamilton, Ontario
90B	Follow-up petition on fishing practices and sensitive fish habitat in the ocean
99B	Follow-up petition on trumpeter swans in Judson Lake, British Columbia
105B	Follow-up petition on federal environmental assessment for a regional road project in St. Albert, Alberta
109B	Follow-up petition concerning a closed landfill in Cramahe, Ontario
118B	Follow-up petition on the environmental impacts of man-made dams
122A	Housing development near Mission, British Columbia
122B	Follow-up petition on a housing development near Mission, British Columbia
123	Resort development near Invermere, British Columbia
124	Enforcement of the *Fisheries Act* in the Province of Quebec
125	Federal regulation of genetically modified organisms
126A	Fumigants and other pesticides in shipping containers
126B	Follow-up petition on fumigants and other pesticides in shipping containers
127	Protection of fish habitat in riparian and streamside areas in British Columbia
128	Clean-up of chemical contamination in Elmira, Ontario
129	Federal re-evaluation of pesticide 2,4-D
130	Incentives to implement Canada's commitments under the Kyoto Protocol
131	Environmental monitoring in Nunavut
132	Ontario Mid-Canada Line radar site remediation

Petition No.	Subject
133	Cumulative environmental effects of resource development in British Columbia
134	Sustainable management of the Pacific herring fishery
135	Large-scale gravel removals from the Lower Fraser River in British Columbia
136	Environmental assessments and permitting man-made dams
137	Strategic environmental assessment and the Red River Floodway
138	Strategic environmental assessment of a causeway in Rustico Harbour, P.E.I.
139	Managing government contractors for sustainable service delivery
140	Cleaning up the Sydney Tar Ponds and Coke Ovens
141	Approval and registration process for pesticides
142	Biodiversity and species at risk
143	Long-range plans for ski areas in Canada's Rocky Mountain parks
144	*Pest Control Products Act* Regulations
145	Business Park development in Surrey, British Columbia
146	Firearms contaminants in federal training facilities
147	Evaluating the tax system to advance environmental goals
148	Protecting wild salmon from disease at fish farms
149	Decision not to list Cultus and Sakinaw Lake sockeye salmon under the *Species at Risk Act*
150	Rapid transit project serving the Vancouver International Airport

Exhibit 8.3 **Did departments and agencies respond on time?**
(responses due between 1 July 2004 and 30 June 2005)

Department/Agency	Number of petitions	Percentage on time
Agriculture and Agri-Food Canada	3	100
Atlantic Canada Opportunities Agency	1	0
Department of Finance Canada	1	0
Department of Justice Canada	2	100
Environment Canada	25	96
Foreign Affairs Canada	2	0
Fisheries and Oceans Canada	30	83
Health Canada	7	57
Industry Canada	1	100
International Trade Canada	1	100
Indian and Northern Affairs Canada	5	100
National Defence	2	100
Natural Resources Canada	4	75
Parks Canada Agency	2	50
Public Works and Government Services Canada	3	100
Transport Canada	9	89
Western Economic Diversification Canada	3	100

8.10 **Departments need to address petitioners' requests.** Departments can ensure the efficiency and effectiveness of the petitions process by providing substantive responses that clearly address all matters raised by the petitioners. As part of our monitoring role, we review responses to petitions to see if they address the petitioners' concerns and requests in a manner that is clear, comprehensive, and understandable. Most departments met these minimum requirements; however, in a few cases departments' responses did not address petitioners' requests, or they were vague and conveyed little meaningful information. This year a number of petitioners have contacted our Office, concerned that issues raised in their petitions have not been sufficiently addressed by departments.

8.11 For example, in our assessment of Fisheries and Oceans Canada's response to a petition on the protection of fish habitat in British Columbia (petition 127), submitted by West Coast Environmental Law, we noted that the Department's response did not explicitly address all questions posed by the petitioner. As a result of follow-up discussions with our Office and the petitioner, the Department agreed to review its response and provide additional information, where appropriate, to the petitioner.

8.12 Where more than one department has provided a separate response to a petition, it is not always evident that all questions have been addressed. When departments choose to respond separately, it would be helpful if they consulted with each other to ensure that all issues and questions have been addressed appropriately.

8.13 The response of Agriculture and Agri-Food Canada, Environment Canada, and Health Canada to petition 125, which dealt with the regulation of genetically modified plants, is a good example of a clear and succinct joint response. In the response, the departments repeated the questions or issues from the petition and addressed each of them in turn. The departments clearly stated where further action is being taken and also where they would be taking no further action.

8.14 Some departments are providing a point of contact in their responses. This can help petitioners follow up, if required, in a more timely manner, and may avoid the need for another petition on the same subject. Fisheries and Oceans Canada informed us that it has put in place a procedure to follow up with petitioners when it promises action in its response.

8.15 **Petitioners' requests for action or information need to be clear.** We commonly receive petitions in which the request or issue that the petitioner is trying to convey is not clear. In these cases, it is difficult for departments to determine what the petitioners would like to know or what results they are looking for. Petitioners can obtain the best results if their requests are clear, and if they provide relevant background and ensure that the facts in their petition are accurate.

8.16 Our Office reviews petitions prior to forwarding them to departments in order to ensure that they meet legislative requirements and that they are clear and understandable. However, if a petition meets the basic requirements of our Act, but it is neither clear nor understandable and the petitioner does not wish to clarify the contents, we forward the petition as is. Departments have indicated to us that dealing with petitions that are not clear is frustrating. We have noted that unclear petitions have resulted in responses that were vague, and petitioners have subsequently submitted follow-up petitions. The need for a follow-up petition can often be avoided if the original petition request is clear.

8.17 This year we noted that, in their responses, departments have corrected information in petitions. It is the petitioner's responsibility to check the facts prior to submitting a petition to our Office.

8.18 The petitions process is a valuable tool for Canadians to draw attention to particular areas of concern and be entitled to a response from the relevant federal ministers and departments. In order for this process to be efficient and effective, both departments and petitioners need to do their share to maintain the integrity of the process.

Audits of petition responses

8.19 In their responses over the years, federal ministers have made statements or commitments to act on the environmental concerns raised by petitioners. Reporting on the status of selected commitments is part of our monitoring role. This year, we followed up on findings from our 2003 audit of a commitment made by Health Canada to update the Guidelines for Canadian Drinking Water Quality for trichloroethylene (TCE) (see 2003 Report, Chapter 4—Environmental Petitions). The findings from this follow-up are included in this year's report, Chapter 4, Safety of Drinking Water: Federal Responsibilities (paragraph 4.24).

8.20 We also conducted the following three audits based on selected petition responses:

- First, we examined whether Natural Resources Canada took action to revise the insurance requirements of the *Nuclear Liability Act* (petitions 60A and 60B).
- Second, we examined whether Environment Canada put in place guidelines to accept or reject recommendations to protect species at risk (petition 61).
- Third, we examined whether Environment Canada's enforcement and compliance promotion activities have reduced the impacts of hog farming on the environment and whether Agriculture and Agri-Food Canada knows if mitigation technologies and beneficial management practices that it supports are being adopted by farmers. This audit stemmed from departmental commitments and statements made in response to concerns raised in petitions 37 and 46.

8.21 For more information on the objectives, criteria, scope, and approach of our audits, see **About the Chapter**.

Insurance for nuclear operators

Accident insurance requirements at nuclear facilities are not in keeping with international standards

8.22 The *Nuclear Liability Act* came into force in 1976. The purpose of the Act is to ensure that funds are available to provide compensation to people who may have been injured or suffered damage as a result of an accident at a nuclear facility. Natural Resources Canada is responsible for federal policy relating to liability for nuclear damages and for the *Nuclear Liability Act* in particular.

Did you know?

[illegible] 16 percent.

8.23 The *Nuclear Liability Act* holds the nuclear operator responsible for assuming liability for any accidents, even in the event that they may have been caused by a third party. However, the Act limits an operator's liability to a maximum of $75 million. To put the liability limit into perspective: If, for example, there was an accident at a nuclear facility located in an urban area that affected one million people and an evacuation was required, each person would receive only $75 in compensation from the operator's insurance. If the amount of damage resulting from an accident exceeded $75 million, it is understood that the federal government and ultimately the taxpayer would be responsible for the balance.

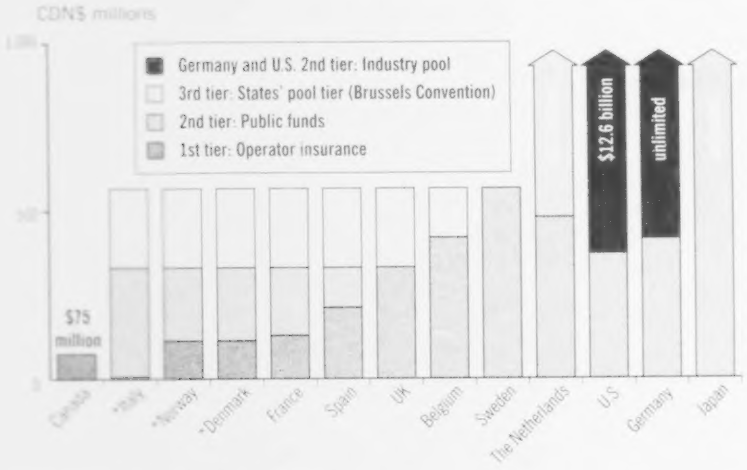
8.24 In 2002 and 2003, Mr. Siegfried Kleinau submitted environmental petitions 60A and 60B to our Office. In his petitions, Mr. Kleinau stated, among other things, that the amount of insurance coverage required under the *Nuclear Liability Act* is insufficient. In his response of March 2003, the Minister of Natural Resources stated that "it is time to bring forward revisions to the *Nuclear Liability Act* to update it and bring it up to international standards." The objective of our audit was to provide an update on the Minister's commitment to revise the Act.

Gentilly-2 Nuclear Generating Station

Source: Hydro Quebec

8.25 Insurance requirements in Canada have not changed or been adjusted for inflation since the Act came into force almost 30 years ago. If the Act required the liability coverage to be adjusted for current inflation rates, in 2005 Canadian nuclear operators would be required to carry $260 million of insurance. Canada's nuclear liability limits are lower than 12 other major industrialized nations with nuclear facilities (Exhibit 8.4). These countries have some combination of operator insurance, public funds, and/or industry pool that substantially exceeds what is required of Canadian operators.

Exhibit 8.4 **Canada's nuclear liability limit is lower than 12 other nations with nuclear facilities**



*These countries operate research reactors only.

Source: Adapted from Natural Resources Canada

8.26 In June 2001, the Senate Committee on Energy, the Environment and Natural Resources recommended that the government take immediate action to amend the *Nuclear Liability Act* and maintain the mandatory insurance coverage at a minimum of $600 million in order to be in line with international conventions. Natural Resources Canada did not formally respond to this recommendation.

8.27 Since 1976, when the Act came into force, a number of proposals from parliamentarians, including private members' bills and Senate recommendations, have been brought forward to improve the Act. According to departmental officials, the delay in revising this legislation is due to lengthy consultations, staff turnover, other federal priorities, and a lawsuit challenging the legality of the legislation.

8.28 The *Nuclear Liability Act* is almost 30 years old, and Canadian nuclear liability requirements are not in keeping with international standards. Although Natural Resources Canada has recognized that revisions to the Act are necessary, officials at the Department were unable to provide a timeline for when the Act would be revised.

8.29 **Recommendation.** Natural Resources Canada should begin preparatory work on revisions to the *Nuclear Liability Act* and submit policy proposals to the Minister by the end of 2005, in order to advance the commitment to bring forward revisions to the Act.

Natural Resources Canada's response. Natural Resources Canada agrees with the recommendation. The Department is undertaking significant policy work to ensure that the revisions required to the *Nuclear Liability Act* are addressed. The Department commits to completing its work on developing policy proposals for revisions to the Act by the end of 2005. The timeframe for bringing forward any revisions will be established by the government once the policy work is completed.

Guidelines for listing species at risk

Environment Canada expects guidelines to be in place in 2006

8.30 The *Species at Risk Act* was passed in December 2002, with most of the Act's provisions coming into force in June 2003. The purpose of the Act is to protect and recover species considered to be at risk that are found on federal lands or under federal jurisdiction and to protect their critical habitat.

8.31 Once certain species are put on the List of Wildlife Species at Risk, it is an offence to kill, harm, harass, or capture that species. The Act enables the federal government to protect species that are not being effectively protected by other jurisdictions. As of January 2005, there were 306 species designated at risk. Listed species are protected with a number of tools, including recovery strategies, action plans, and emergency orders. The *Species at Risk Act* is one part of a larger three-part federal strategy to protect species at risk. The Accord for the Protection of Species at Risk and the Habitat Stewardship Program for Species at Risk also form part of the strategy.

8.32 The *Species at Risk Act* calls on an expert scientific body—the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)—to inform Environment Canada on the biological status of species in Canada. The committee's assessments do not consider the social or economic implications of listing species. The status is determined based on the best available scientific knowledge, community knowledge, and Aboriginal traditional knowledge.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC)—The committee assesses the status of wildlife species in Canada that may be at risk of extinction. It is currently made up of 30 members from the provinces and territories, federal agencies, Aboriginal groups, and other organizations.

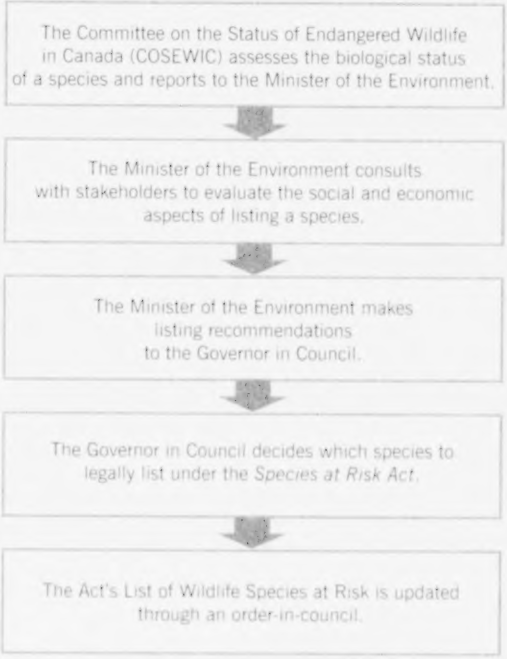
8.33 Environment Canada is the lead federal department for administering the *Species at Risk Act*, and one of its responsibilities is to post information on the public registry (www.sararegistry.gc.ca). If the species in question falls within its areas of expertise, Environment Canada must consult with Fisheries and Oceans Canada and the Parks Canada Agency before advising the Governor in Council which species to list as being at risk (Exhibit 8.5). The Act encourages the consideration of the socio-economic needs of Canadians while providing for the ecological needs of vulnerable species.

Governor in Council—A reference to the Governor General, acting with the advice and consent of Privy Council, who may, on the recommendation of the Minister of the Environment, amend the List of Wildlife Species at Risk by adding, reclassifying, or removing a species.

8.34 In November 2002, Ms. Heather Mills and Ms. Dorrie Wiwcharuk sent a petition to our Office requesting information about the criteria used to determine which species would be placed on the List of Wildlife Species at Risk. In his response, the Minister of the Environment stated that the federal government was developing guidelines for dealing with those rare cases where he would not follow a COSEWIC recommendation to list a species as being at risk under the Act; however, he did not provide a timeframe for finalizing the new guidelines.

8.35 Since fall 2003, Environment Canada, with input from the Parks Canada Agency, Fisheries and Oceans Canada, and other stakeholders, has been drafting guidelines for listing species that COSEWIC has deemed to be at risk. The guidelines are intended to be

Exhibit 8.5 **Process to list a species at risk**



The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the biological status of a species and reports to the Minister of the Environment.

The Minister of the Environment consults with stakeholders to evaluate the social and economic aspects of listing a species.

The Minister of the Environment makes listing recommendations to the Governor in Council.

The Governor in Council decides which species to legally list under the *Species at Risk Act*.

The Act's List of Wildlife Species at Risk is updated through an order-in-council.

a set of decision-making criteria that ministers should consider when recommending to the Governor in Council inclusion of a species on the List of Wildlife Species at Risk. These guidelines are intended to provide greater transparency to Canadians and consistency when advising on whether a species should be listed following a COSEWIC recommendation.

The Burrowing Owl is a species at risk.

Source: ©Christian Artuso

8.36 In November 2004, Environment Canada presented a draft copy of the guidelines to the Species at Risk Advisory Committee for review and comment. The Department told us that getting consensus from the various stakeholders will be quite difficult. It indicated that these guidelines will be finalized in 2006.

8.37 In the absence of these guidelines, the first set of listing decisions under the *Species at Risk Act* was made in October 2004. Out of the 79 species recommended for listing by COSEWIC, the Minister of the Environment recommended that COSEWIC further assess one species of fish. The Minister also recommended that Cultus Lake and Sakinaw Lake sockeye salmon not be added to the List of Wildlife Species at Risk because of unacceptably high social and economic costs and difficulty in differentiating members of these two populations from the larger population of sockeye salmon species.

8.38 As a result, the Minister of the Environment recommended to the Governor in Council that 76 of the 79 species identified by COSEWIC be added to the List of Wildlife Species at Risk. In January 2005, the Governor in Council listed 73 of the species recommended by the Minister but did not list the polar bear, the northwestern population of the grizzly bear, and the western population of the wolverine because additional consultation was required.

8.39 In May 2005, the Minister of the Environment recommended that 43 additional species be added to the List of Wildlife Species at Risk. One species, the plains bison, was not recommended for listing because of potential economic implications. At the time of our audit, the Governor in Council had not yet made a final decision on whether or not to list these species.

8.40 In 2006, Environment Canada plans to have final guidelines in place for dealing with cases where the Minister would not follow a COSEWIC recommendation to add a species to the List of Wildlife Species at Risk. In the meantime, listing decisions are being made. However, until these guidelines are in place, Environment Canada cannot ensure that decisions being made to list or not to list a species at risk are transparent or consistent.

Impacts of hog farming

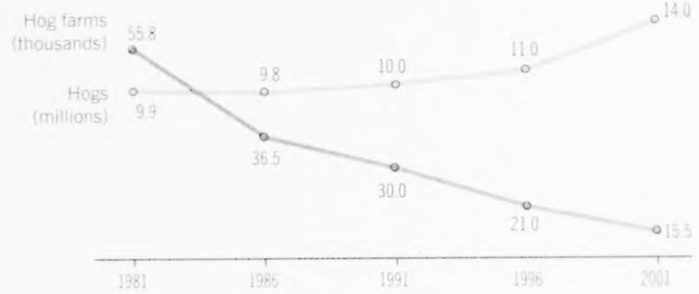
8.41 Hog farming is an important agricultural activity in Canada. In 2004, Canadian farmers received $4.3 billion from the sale of hogs, according to Statistics Canada. This represents about 12 percent of total farm sales in Canada for that year. Agriculture and Agri-Food Canada reports that in 2004, Canada was the fifth largest producer and the third largest exporter of pork in the world. Canada exports over half the pork it produces, mainly to the United States and Japan, according to Statistics Canada.

Increased growth in the hog industry

In 1995, the federal government eliminated the Crow Rate, a transportation subsidy that helped farmers transport their grain to the nearest port. This forced many farmers in the prairie provinces to look for new ways to use their grain; many now use it as feed for hogs. This is one of the factors that has led to the growth of the hog industry in recent years.

8.42 Based on hog inventories prepared by Statistics Canada in 2005, the hog industry has expanded by almost 50 percent since 1981. The production of hogs is shifting from "farm to factory"—there has been a reduction in farms producing hogs and an increase in hogs on farms (Exhibit 8.6). In 1991, the average hog farm had 345 animals; in 2001, the number had increased to around 900. Some hog farms in Canada have reported as many as 10,000 hogs.

Exhibit 8.6 **The number of hogs has increased, while the number of hog farms has decreased**



Source: Adapted from Statistics Canada

8.43 Quebec, Ontario, and Manitoba lead Canada in hog production. In 2001, over half of all hogs in Canada were produced in Quebec and Ontario. Between 1991 and 2001, the number of hogs produced in Manitoba increased by 97 percent (Exhibit 8.7).

8.44 According to Agriculture and Agri-Food Canada, a hog produces an average of about one tonne of manure per year. Hog manure contains nutrients that are valuable for crop production and that enhance soil properties when properly applied. However, some hog farms do not have enough land on which to spread the manure produced by their hogs or are located away from areas where field crops are produced. If manure is not properly stored or disposed of, it can contaminate the water, soil, and air. Potential impacts include the following:

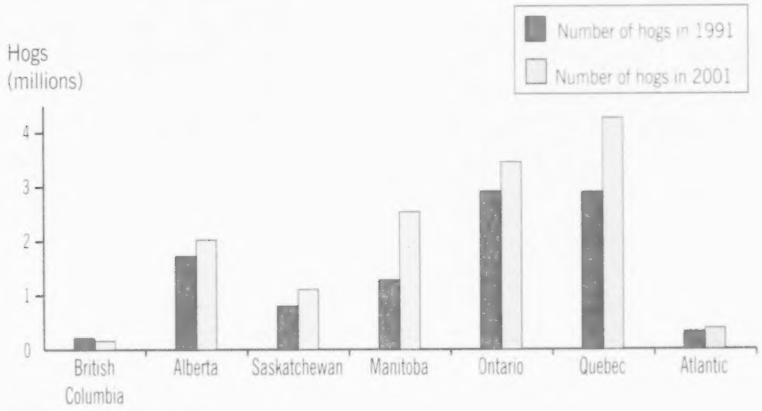
- Contamination of water bodies by bacteria, such as E. coli, giardia, and others, can make water unfit for human use.
- Excess nutrients, including nitrogen and phosphorus in water bodies, can result in algae growth, eutrophication, and fish kills.
- High concentrations of nutrients and heavy metals building up in the soils can be toxic to crops.
- Odours can result from manure storage facilities and field application.

Eutrophication—A process that occurs when too many nutrients (nitrogen and phosphorus) enter a water body. These nutrients increase the growth of algae and other species that deplete the available oxygen in water, which can kill fish and other aquatic life.

As the concentration of intensive hog operations increases, so does the potential for negative impacts to human health and the environment.

8.45 Canadian scientists are still unsure of the effects that manure from hog farms has on water quality and human health. In May 2002, Quebec responded to the growth of the hog farming industry and citizens' concerns by putting in place a moratorium on the expansion of existing hog farms and on the development of new hog farm operations. Research is currently under way at Lake Huron and Lake Winnipeg to find out whether the eutrophication and bacterial contamination observed are related to the proximity of intensive agricultural activities.

Exhibit 8.7 **Number of hogs by province**



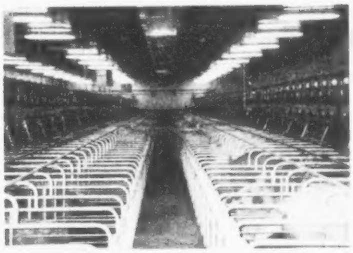
Source: Statistics Canada

8.46 **Governing hog farms is a shared responsibility.** Both federal and provincial governments have regulations and initiatives that deal with agricultural activities and the environment. Federal efforts by Agriculture and Agri-Food Canada and Environment Canada focus on research and development to reduce the environmental impacts from agriculture in general, and on compliance with and enforcement of the pollution prevention provisions of the *Fisheries Act*. Provincial involvement includes, but is not limited to, issuing permits, licensing, enforcing laws and regulations on hog operations, specifying separation distances to wells, and placing restrictions on manure spreading. Local governments regulate building permits and zoning provisions.

8.47 Since 2002, the Commissioner of the Environment and Sustainable Development has received three environmental petitions from Canadians concerned about the potential impacts of hog farming on the environment and on their communities (petitions 37, 39, and 46). Based on statements made in petition responses 37 and 46, we audited Environment Canada and Agriculture and Agri-Food Canada's actions to reduce the impacts of hog farming on the environment.

Environment Canada cannot yet demonstrate that its compliance promotion and enforcement efforts at hog farms are effective

8.48 The *Fisheries Act* prohibits the direct or indirect deposit of deleterious substances into water frequented by fish. It is the primary federal statutory instrument for enforcement activities related to hog farming. Environment Canada administers and enforces the pollution prevention provisions of the *Fisheries Act*. For the last three years, Environment Canada has identified the enforcement of these provisions as a priority. In its 1999 Business Case, Environment Canada noted that agriculture posed a risk to the environment and established it as a priority for enforcement under the *Fisheries Act*. The Department further stated that enforcement activities for this sector would focus on large feed lots.



Hog barn

Source: Prairie Swine Centre

8.49 Given the growth of the industry, the potential for environmental impacts, Environment Canada's enforcement priorities regarding the *Fisheries Act*, and the Minister's responses to petitions 37 and 46, we looked at Environment Canada's enforcement activities at hog farms. Our audit determined that it is typically the provinces that receive and deal with complaints about hog farming. Alberta, Ontario, and Saskatchewan have agreements with the federal government to co-operatively administer the pollution prevention provisions of the *Fisheries Act*. Provinces can also use their own environmental legislation to enforce activities at hog farms. For example, the Province of Ontario received 62 complaints related to hog farming from April 2004 to February 2005, for such issues as manure spills, nuisance odours, and improper spreading practices. The Province convicted three hog farmers for discharging manure into the environment.

8.50 Environment Canada's enforcement activities at hog farms are mostly reactive. The Department initiates investigations of *Fisheries Act* violations only if it has received a complaint. According to Environment Canada's enforcement database, out of the approximate 7,600 *Fisheries Act* complaints the Department received from across the country between 2000 and 2004, about 37 complaints involved hog farming. Department officials told us that all complaints were investigated, and Environment Canada had prosecuted one hog farm for violating the *Fisheries Act*.

8.51 **Compliance promotion is a priority for Environment Canada.** Although Environment Canada's role in enforcement for hog farms is limited, the Department plays an important role in promoting compliance with the pollution prevention provisions of the *Fisheries Act*. In 2003, Environment Canada created a new Compliance Assurance Branch. The goals of the branch are to improve the planning of compliance promotion and enforcement efforts and the effectiveness of analysis and reporting of compliance activities. This branch is tasked with determining priorities and fostering links between enforcement and compliance promotion. The Department promotes compliance by preparing and distributing guidelines and policies, consulting with industry associations and working groups, and preparing and presenting educational and training materials.

[illegible]

8.52 In its 2002 response to petition 37, Environment Canada stated that it will likely work on further compliance promotion and enforcement in the Lake Huron watershed, due to the large concentration of intensive livestock operations. It further committed to gathering data on watersheds with the greatest agricultural impacts. In our view, this will help the Department better direct some of its resources toward issues of highest priority.

8.53 The Department met its commitment in the context of the Ontario region. It has undertaken further compliance promotion and enforcement activities in the Lake Huron area. However, we found that the Department does not gather data on a national basis in order to direct resources toward issues of highest priority.

8.54 **Environment Canada's compliance promotion activities yield mixed results.** Environment Canada informed us that compliance promotion can be more efficient than enforcement. However, the Department has seen mixed results in its efforts to increase farmers' compliance with the pollution prevention provisions of the *Fisheries Act*. In 2004, the Ontario region of the Department conducted a study at a watershed and found that its compliance promotion activities did not result in any significant new action or improved practices by farmers.

8.55 Environment Canada is working to evaluate and improve the effectiveness of its compliance promotion activities. The Department is developing indicators that will help determine if its actions are having an impact. For example, a pilot study on cattle access to water, conducted in a watershed in the Ontario region, indicated that compliance promotion and enforcement activities increased compliance by 20 percent in the study area. In addition, the Department is in the preliminary stages of developing a database to track and monitor its compliance promotion activities, as it currently does for its enforcement activities. However, the Department could not provide a timeline for when the database or the indicators will be in place.

8.56 **Environment Canada does not track what it spends to enforce the pollution prevention provisions of the *Fisheries* Act.** In 1998, the House of Commons Standing Committee on Environment and Sustainable Development recommended that Environment Canada keep comprehensive records on enforcement budgets and expenditures. The Department agreed to do so and has listed enforcement of *Fisheries Act* provisions as a priority for the last three years. We were therefore surprised to learn that the Department does not code its enforcement activities by Act or regulation and was not able to tell us how much it spends to enforce the pollution prevention provisions of the *Fisheries Act*. As of 2005, the Department had received $46 million in new funding to improve its compliance and enforcement program for legislation for which it is responsible, including the *Fisheries Act*. In our view, monitoring results and tracking what it spends to enforce the pollution prevention provisions would enable the Department to better direct its resources.

8.57 **Environment Canada does not have a complete picture of who it regulates.** Environment Canada is in the third year of a 10-year plan to collect information on those who should be regulated under the pollution prevention provisions of the *Fisheries Act* and the *Canadian Environmental Protection Act, 1999*. At this stage, the Department does not yet have all the information required to ensure that its enforcement and compliance promotion activities are being directed toward those who are at greatest risk of breaking the environmental laws that it is mandated to enforce.

8.58 **Recommendation.** In order to ensure that its compliance promotion and enforcement efforts related to hog farming are effective, Environment Canada should

- identify the regulated community,
- gather data on a national basis to direct or prioritize resources,
- monitor the impacts of its efforts, and
- keep comprehensive records on budgets and expenditures.

Environment Canada's response. Environment Canada agrees with the recommendation. It should be noted, however, that these recommended activities, although directed to hog farming, are relevant to all environmental issues where the Department has compliance promotion and enforcement responsibilities. The Department uses priority-setting mechanisms for both compliance promotion and enforcement activities under the *Fisheries Act* and the *Canadian Environmental Protection Act, 1999*. These mechanisms allow for the consideration and prioritization of all issues, including hog farming.

Identification of all hog farms in Canada will be done in fiscal year 2006–07, in collaboration with Agriculture and Agri-Food Canada and provinces. This will help Environment Canada identify watersheds with the greatest agricultural impacts across Canada, and compliance promotion and enforcement efforts regarding hog farming issues will be more easily directed to issues of highest priority. This priority-setting exercise would need to consider the ongoing efforts by provinces and others to reduce the environmental impacts of hog farming operations. For example, many provinces have recently developed nutrient management regulations, which are also supported by various voluntary measures under the Agricultural Policy Framework.

To improve monitoring of the impacts of its efforts, Environment Canada will continue to track its compliance promotion and enforcement activities. The Department will also continue to pilot a database that could be used nationally.

Agriculture and Agri-Food Canada's strategic approach to reducing the environmental impacts of hog farming is not clear

8.59 In 1998, the hog industry asked Agriculture and Agri-Food Canada to re-examine its role and work with industry and the provinces to develop a more comprehensive and co-ordinated approach to the environmental issues faced by the hog industry. The Department and the hog industry conducted a review of the environmental challenges and together recommended that a strategic approach was needed to determine priorities in research, technology development, and dissemination.

8.60 Also in 1998, Agriculture and Agri-Food Canada announced it would spend $2 million to develop a hog environmental management strategy. The purpose of the strategy was to develop a national approach to finding effective and affordable solutions to the environmental challenges of the hog industry by 2001. During our audit, the Department informed us that its efforts focussed on research, technology development, and communications, but that a hog environmental management strategy had not been developed.

8.61 In our 2001 Report (see Chapter 1—A Legacy Worth Protecting: Charting a Sustainable Course in the Great Lakes and St. Lawrence River Basin), we observed that a strategic approach to deal with the environmental impacts of hog farming was more important than ever. Our audit concluded that it was not clear if the initiatives of Agriculture and Agri-Food Canada would produce the strategic, well-co-ordinated effort that was needed to assist farmers.

Agricultural Policy Framework—Approved in 2001, the framework is designed to help the Canadian agricultural industry maximize new opportunities by safeguarding and enhancing the food safety and quality system through science and environmentally sound practices. The five elements of the framework are food safety and quality, environment, science and innovation, renewal, and business risk management.

8.62 In 2001, the Agricultural Policy Framework moved the Department from a sector-based approach to an issue-based approach. The environmental component of the framework focusses on reaching goals in the areas of air, water, soil, and biodiversity. Programs dealing with the environmental impacts of hog farming, including those developed under the framework, are listed on page 22, Hog farming programs and initiatives. Department officials told us that the responsibility for developing a strategic and comprehensive vision for the hog sector, as requested by industry, is now deferred to the Pork Value Chain Roundtable. The Roundtable's Strategy for Canada's Pork Industry, dated May 2005, identifies environmental issues as a major concern and notes that action here could improve the sustainability of the pork sector. However, we found that only one of the 57 specific actions identified by the Roundtable addresses environmental matters.

8.63 Based on previous audit observations and on commitments from Agriculture and Agri-Food Canada dating back to 1998, we expected that the Department would have developed a hog environmental management strategy. In our view, it is still not clear if the Department has a comprehensive, strategic approach to help farmers reduce the environmental impacts of hog farming and work toward a sustainable hog industry.

8.64 Agriculture and Agri-Food Canada leads programs to reduce the environmental impacts of hog farming. Agriculture and Agri-Food Canada has made progress in gathering baseline data and has led many programs and initiatives to address the environmental issues arising from hog production in Canada. In 2002, the Department partnered with Statistics Canada to conduct a Farm Environmental Management Survey. About 16,000 farms, including hog farms, were surveyed to collect baseline information. A follow-up survey is planned for 2007. This information will be used by the Department to measure the impacts of agriculture on the environment through the National Agri-Environmental Health Analysis and Reporting Program (NAHARP).

Agri-Environmental Indicators

In response to the need for information and to assess the impacts of agricultural policies on the environment, Agriculture and Agri-Food Canada is developing a set of science-based indicators. The indicator for the risk of water contamination by nitrogen states that between 1981 and 2001, overall nitrate concentrations in water bodies in Canada increased by 24 percent.

Hog farming programs and initiatives—Agriculture and Agri-Food Canada

Hog Environmental Management Strategy. Develop a national strategy for finding effective and affordable solutions to the environmental challenges confronting the industry. (1998–2001)

Livestock Environmental Initiative. Promote technologies and beneficial management practices, communicate the results to livestock producers, and develop a national environmental certification system for the hog industry. (2000–05)

Environmental Management Systems for Hog Operations (CSA 2771). Develop a national environmental management system for the hog industry through the Canadian Standards Association. (2000–04)

National Agri-Environmental Health Analysis and Reporting Program. Update and improve the current suite of 14 agri-environmental indicators and develop 12 new indicators to address existing gaps. Develop and improve tools and analytical capacity to integrate environmental indicators with economic information to better inform policy development and evaluation. (2003–ongoing)

Farm Environmental Management Survey. Determine the range of farming practices in Canada. About 16,000 farms, including hog farms, were surveyed to collect baseline information. A joint survey was completed by Statistics Canada and Agriculture and Agri-Food Canada in 2002; a follow-up survey is planned for 2007.

Environmental Farm Plans. Encourage producers to develop farm plans, implement beneficial management practices, and continuously evaluate their environmental performance. Producers with approved environmental farm plans are eligible to receive financial assistance under the National Farm Stewardship Program to implement beneficial management practices. (2003–08)

National Farm Stewardship Program. Provide producer groups or community organizations with financial assistance for projects involving beneficial management practices. Only producers who have completed an approved environmental farm plan will be eligible for funding. (2003–08)

Information Gaps in Water Quality and Nutrients. Conduct research to accelerate the development of beneficial management practices to minimize adverse impacts of agriculture on water quality. (2003–08)

National Agri-Environmental Standards Initiative. Develop national agri-environmental performance standards for the agriculture sector. (2003–08)

Environmental Technology Assessment for Agriculture. Assess innovative environmental technologies for agricultural production and share information on environmental technologies. (2004)

National Land and Water Information Service (NLWIS). Provide land and water information and decision support services that encourage improved decision making through access to technical skills and spatial information. NLWIS will put expertise and knowledge together with tools and information in order to support environmentally responsible land management decisions. (2004–08)

Environmental Health National Science Program. Conduct research to develop knowledge and technologies to minimize the impact of agricultural production on the environment. (Part of Agriculture and Agri-Food Canada's ongoing core science activities)

8.65 Agriculture and Agri-Food Canada has started to monitor the environmental impacts of agriculture through NAHARP and the Farm Environmental Management Survey Program. We expected that the Department would also monitor the results of its programs in order to better direct its resources. However, it does not always do so, and therefore the Department does not know if its programs are achieving their expected results.

8.66 For example, in 2000, Agriculture and Agri-Food Canada announced $2.3 million for the Livestock Environment Initiative to assist industry in addressing environmental concerns. The initiative wrapped up with a symposium that shared research findings. However, the Department did not follow up to verify whether the objectives of the program were met, including development of pilot projects or the transfer of technology.

8.67 Further, Agriculture and Agri-Food Canada announced it would spend $300,000 to develop a standard to promote responsible environmental management of hog operations in Canada. The standard was published in March 2004 by the Canadian Standards Association. However, during our audit the Department could not provide plans to monitor or assess the implementation of this standard to determine if it has had an impact at the farm level. Department officials advised us that a proposal to test the implementation of the standard on a pilot basis was approved in principle on 16 May 2005.

Agriculture and Agri-Food Canada is not effectively communicating or monitoring its beneficial management practices

Beneficial management practice—A farm production or management practice that contributes to reducing environmental risks or realizing environmental benefits from agriculture.

8.68 Agriculture and Agri-Food Canada and Environment Canada also develop and fund mitigation technologies and beneficial management practices for hog farming. Although we examined research activities conducted at Environment Canada's National Water Research Institute, our audit focussed mainly on the programs developed at Agriculture and Agri-Food Canada because they are designed to produce results at the farm level. Exhibit 8.8 provides an example of a beneficial management practice developed by Agriculture and Agri-Food Canada.

8.69 Environment Canada conducts research related to hog farming primarily through its National Water Research Institute. Research activities to date have focussed on the impacts of manure on water quality and are undertaken with a variety of stakeholders, including Agriculture and Agri-Food Canada. Environment Canada works to identify important emerging issues, including investigating the cause of the beach closures at Lake Huron. However, scientists indicated that there are still gaps in knowledge about the impact of hog farming on the environment and that beneficial management practices in this area need more work.

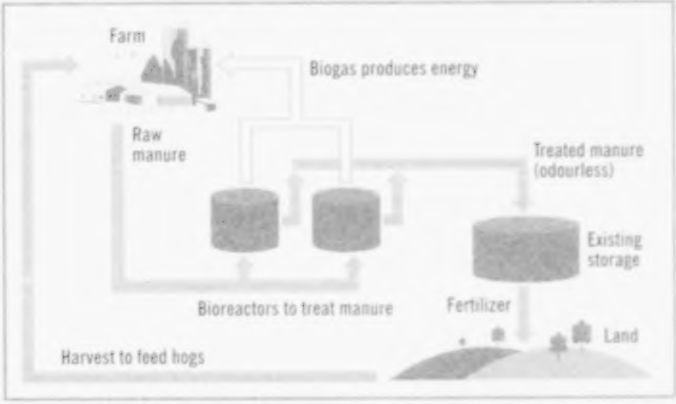
8.70 **Progress is slow.** Agriculture and Agri-Food Canada is working to deliver beneficial management practices to hog farmers through its Environmental Farm Plan Program and its National Farm Stewardship Program. The Department informed us that it can take up to 10 years to develop and implement such practices at the farm level. It provided a list of 10 categories of beneficial management practices for hog farming that have been developed with stakeholders. The implementation of the National Farm Stewardship Program, which provides funding to farmers for implementing beneficial management

Exhibit 8.8 **An example of a beneficial management practice developed by Agriculture and Agri-Food Canada to treat hog manure**

Agriculture and Agri-Food Canada has developed treatment technology for hog manure that claims to

- produce high-quality fertilizer,
- reduce odour problems,
- eliminate pathogens,
- generate heat and electricity, and
- reduce greenhouse gas emissions from manure.

The technology is being demonstrated at several hog farms through Bio-Terre Systems Ltd.



For more information, see http://www.qc.ec.gc.ca practices, hinges on the voluntary completion of environmental farm plans by farmers. The Department projects that about 66,530 environmental farm plans will be developed or updated by 2008. Currently, about 25 percent of this total have been reviewed and accepted under the Agricultural Policy Framework, and those that were completed prior to the framework are under review for approval. Information provided by the Department notes that delays in the development of environmental farm plans can lead to delays in other programs, including the National Farm Stewardship Program.

Elstow Research Farm

Source: Prairie Swine Centre

8.71 **Beneficial management practices are not effectively communicated.** In 1999, Agriculture and Agri-Food Canada funded a research project to look into fostering a sustainable hog industry. The report recommended that beneficial management practices be incorporated into a database to promote their implementation by hog farmers. Accordingly, we expected that the Department's beneficial management practices would by now be made available on a database that farmers and others could readily access. This database could also assist Environment Canada with its compliance promotion efforts. However, we found that no central database of this nature is available. Recent surveys of farm practices found that many farmers are still not using beneficial management practices.

8.72 A recent Statistics Canada study indicates a wide variation among regions in knowledge and implementation of beneficial management practices to deal with hog manure. For example, in 2001, 95 percent of livestock farmers in Quebec were familiar with beneficial management practices for manure management, compared with 45 percent in Saskatchewan and 63 percent in Manitoba. Department officials told us that outside the prairie provinces, programming related to federal beneficial management practices is delivered by provincial governments and by third-party industry groups. On the prairies, these federal programs are delivered by Agriculture and Agri-Food Canada. The Department identified the need for a national approach to communication in this area and is currently developing consistent information for all provinces and regions. However, the Department currently cannot demonstrate that beneficial management practices and mitigation technologies are communicated consistently across the country or made readily available to farmers who need them.

A need to improve knowledge of beneficial management practices

In 2004, Statistics Canada noted "a real need for education and awareness of beneficial [management] practices" for manure management. It found that almost 40 percent of livestock farmers indicated that they were unfamiliar with beneficial management practices for manure management.

8.73 Agriculture and Agri-Food Canada does not know if the beneficial management practices it supports are cost-effective. The Department's 1999 research report concluded that it was necessary to be able to demonstrate results and feasibility for new technologies for manure management and treatment to ensure the widespread acceptance of these technologies by hog producers. During our audit, the Department was unable to provide information on what it would actually cost a farmer to implement beneficial management practices. Without important cost information, hog farmers are unlikely to implement innovative practices that could reduce the impacts of hog farming on the environment.

8.74 Agriculture and Agri-Food Canada does not monitor the uptake of its beneficial management practices. The Department has made progress in gathering baseline data on environmental issues related to hog farming through its Farm Environmental Management Survey and NAHARP. However, the Department does not currently monitor the implementation of these practices by farmers and cannot report on a national basis on the effectiveness of the practices it supports. Tracking which practices work well and where they work well on a national basis would ensure that the Department is allocating its resources effectively.

8.75 **Recommendation.** Agriculture and Agri-Food Canada should clarify its approach to addressing the environmental impacts of hog farming and clearly communicate the approach to all stakeholders, in order to encourage a sustainable hog industry. The Department should also effectively communicate its beneficial management practices and monitor their implementation.

Agriculture and Agri-Food Canada's response. Agriculture and Agri-Food Canada accepts the recommendations of the Office of the Auditor General. The Department is developing a communications plan to address the Environment Element of the Agricultural Policy Framework. This includes communications to producers about environmental stewardship, farm planning, and beneficial management practices that relate to hog and other kinds of farming activities. To clarify the approach and communicate it to all its stakeholders, the Department will improve the Framework's Environment Element on its Web site. The site will provide national and provincial information, as well as appropriate links to program delivery agents. The link to *ManureNet*, a national Web site, will be made more prominent. This site is dedicated to manure management issues in Canada and provides information including research projects, acts, regulations, guidelines, fact sheets, and new technologies. The timeline for completing this project is March 2006. The Department also commits to improving the communication of its environmental strategy through the next Sustainable Development Strategy.

To communicate beneficial management practices, the Department will work to improve the availability of information for producers on relevant programs under the Agricultural Policy Framework. Direct communications with producers on beneficial management practices will also continue on a regional basis through provincial Environmental Farm Planning programs, and by provincial delivery agents of the National Farm Stewardship Program (NFSP). The timeline for completing this project is March 2006. To monitor the implementation of beneficial management practices, the Department will continue to collect information on implementation of these practices through delivery agents of the NFSP. Information will be stored in a national database. This information will also be used to support program refinements to foster increased implementation of the practices by all producers by March 2008. Through agri-environmental indicators, the Department will also continue to assess the broad impact of adopting beneficial management practices on the environment. Agri-environmental indicators are reported on a five-year basis, with the next report due in 2005.

Conclusion

8.76 Petitions have resulted in departments taking action on environmental issues. In order for the petitions process to be an effective tool, the integrity of the process must be maintained by both petitioners and departments. Petitioners can do this by clearly presenting their issues and questions and making certain that their facts are correct. Departments are responsible for responding in a timely manner and ensuring that all issues raised in petitions are clearly addressed.

8.77 As part of our monitoring role, we audited selected commitments made by Natural Resources Canada and Environment Canada in response to petitions. We found the following:

- Natural Resources Canada has yet to revise the *Nuclear Liability Act*. The Act is almost 30 years old and the current insurance requirements are significantly lower than those imposed in 12 other major industrial countries with nuclear facilities.

- Environment Canada expects to have guidelines in place in 2006 to assist the government when deciding to accept or reject a science-based decision by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). These guidelines are intended to provide greater consistency and transparency in decisions on whether to designate a species at risk.

8.78 In our audit on the impacts of hog farming, we found that Environment Canada and Agriculture and Agri-Food Canada do not know if their programs and activities are reducing the impacts of hog farming on the environment. Specifically, we found the following:

- Environment Canada met its commitment in its petition response for the Ontario region. However, the Department does not currently monitor or track its compliance promotion activities and cannot yet demonstrate that its efforts related to hog farming have resulted in an increase in farmers' compliance with the pollution prevention provisions of the *Fisheries Act*.
- Agriculture and Agri-Food Canada has yet to clarify its strategic approach to addressing the environmental impacts of hog farming and clearly communicate the approach to all stakeholders, in order to encourage a sustainable hog industry. The Department has made progress in measuring the impacts of agriculture on the environment in general and has developed beneficial management practices and mitigation technologies to deal with the impacts of hog farming. However, it cannot demonstrate that these practices are communicated consistently and made readily available to farmers.

About the Chapter

Objectives

Annual report on petitions. The objective of this chapter is to inform Parliament and Canadians on the use of the petitions process and our monitoring of commitments and statements made in response to specific petitions.

Audits of petition responses. The objective of our audits of petitions 60A, 60B, and 61 was to provide an update on

- Natural Resources Canada's commitment to "bring forward revisions to the *Nuclear Liability Act* to update it and bring it up to international standards," and
- Environment Canada's commitment to "develop guidelines [for legally listing species under the *Species at Risk Act*]."

The objective of our audit of the impacts of hog farming was to determine whether

- Environment Canada's compliance promotion and enforcement activities are making a difference with respect to the impacts of hog farming on water quality, and
- Agriculture and Agri-Food Canada and Environment Canada know if mitigation technologies and best management practices that they developed are being adopted by farmers.

This objective stems from commitments made by departments in response to petitions 37 and 46.

- "We [Environment Canada] are also gathering data on watersheds with the greatest agricultural impacts so that we can better direct some of our resources toward issues of the highest priority. Because of the large concentration of intensive livestock operations in the Lake Huron watershed, it is likely that we will be working on further compliance promotion and enforcement there."
- "My department [Environment Canada] also works with Agriculture and Agri-Food Canada to address hog manure impacts....We are also developing mitigation technologies and best management practices that can be adopted by farmers."

Criteria

It is expected that in order to implement the commitments in a response to a petition, the entity would have

- clearly identified the commitment and what it means for the entity;
- planned its implementation;
- carried out the planned implementation, including communicating any changes as required; and
- determined that the commitment had been met and, where appropriate, evaluated the degree to which it addressed the overall issues raised in the petition.

Scope and approach

To determine which petition responses to audit, we reviewed all petitions and responses received before 1 July 2004. We selected petition responses for audit using the following criteria:

- materiality/significance of the issue,
- risk that Canadians were not getting value for money and risk to the environment,
- sensitivity of the issue,
- federal mandate,
- availability of evidence/objectivity of information about the issue and the commitment made,
- auditability, and
- timeliness.

We conducted interviews and field work to determine whether and how well the commitments were being met. We collected data and evidence of implementation of the commitments, along with appropriate documentation. Some quantitative information in this chapter is based on data drawn from various federal and other sources indicated in the text. We are satisfied with the reasonableness of the data, given its use in our chapter. However, the data has not been audited, unless otherwise indicated in the chapter.

Audit team

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Appendix A Petitions activity (1 July 2004 to 30 June 2005)

This appendix includes follow-up petitions and new petitions received during the activity period noted above.

To access the full text of petitions and replies from December 1995 to 30 June 2005, go to our Petitions Catalogue on our Web site (www.oag-bvg.gc.ca/domino/petitions.nsf/english). If necessary, paper copies of the catalogue can be obtained on request.

Follow-up petitions

Petition No. 126B: Follow-up petition on fumigants and other pesticides in shipping containers

Date submitted: 8 March 2005

Petitioner(s): Tom Edwards

Summary: In petition 126A, the petitioner alleged that he was exposed to a potentially toxic pesticide while handling an overseas shipping pallet in his workplace. In its response, Transport Canada stated that it could not take any action unless the chemical was positively identified. In this follow-up petition, the petitioner provides documentation of the workplace incident and a positive laboratory identification of the chemical.

The petitioner asks additional questions about the government's measures to control the use of banned and toxic pesticides on shipments entering Canada and about protecting the safety of border services workers.

The petitioner also asks the federal government to provide him with worker assistance and compensation.

See related petition No. 126A.

Issues: Human health/environmental health (toxic substances) (pesticides), international/bilateral issues (transboundary concerns) (trade), and transportation (shipping)

Federal departments/agencies replying: Transport Canada, Health Canada, Human Resources and Skills Development Canada, and Canada Border Services Agency

Status: Replies pending

Petition No. 122B: Follow-up petition on a housing development near Mission, British Columbia

Date submitted: 4 January 2005

Petitioner(s): A Canadian resident

Summary: In this follow-up petition about the proposed Silvermere housing development near Mission, British Columbia, the petitioner is concerned that a proposal to reduce lake water levels and to construct a road will result in damage the Silvermere Lake/Stave River ecosystem and affect spawning salmon. The petitioner believes that the proposal should require a *Fisheries Act* permit and asks that a statutory review or federal environmental assessment be conducted on the development proposal. See related petition No. 122A.

Issues: Biological diversity (endangered species) (habitat) (watershed protection) and fisheries (habitat) (conservation)

Federal departments/agencies replying: Fisheries and Oceans Canada

Status: Completed

Petition No. 118B: Follow-up petition on the environmental impacts of man-made dams

Date submitted: 3 February 2005

Petitioner(s): The Friends of the Oldman River

Summary: In this follow-up to petition 118A, the petitioner is concerned about the impacts of man-made dams on fish and fish habitat across Canada. The petitioner provides a list of dams and asks Fisheries and Oceans Canada to indicate which dams are on water bodies that support fisheries and/or fish habitat. The petitioner also asks the Department to indicate which of the listed dams have had a *Fisheries Act* authorization and which ones currently have *Fisheries Act* authorizations. See related petition No. 118A.

Issues: Fisheries (habitat) (conservation) and water issues (aquatic ecosystems) (navigable waters)

Federal departments/agencies replying: Fisheries and Oceans Canada

Status: Completed

Petition No. 109B: Follow-up petition concerning a closed landfill in Cramahe, Ontario

Date submitted: 13 October 2004

Petitioner(s): Bruce Melnichuk

Summary: In this follow-up petition regarding a closed landfill in Cramahe, Ontario, the petitioner thanks Environment Canada for its actions in response to petition 109A and requests additional investigation of the site. The petitioner alleges that the landfill is discharging contaminants into nearby Cold Creek in contravention of the *Fisheries Act*. See related petition No. 109A.

Issues: Fisheries (enforcement), human health/environmental health, and water issues (groundwater) (water quality)

Federal departments/agencies replying: Environment Canada

Status: Completed

Petition No. 105B: Follow-up petition on federal environmental assessment for a regional road project in St. Albert, Alberta

Date submitted: 22 September 2004

Petitioner(s): Elke Blodgett

Summary: This petitioner raises concerns about the Screening Environmental Assessment Report prepared by Fisheries and Oceans Canada in August 2004. The petitioner alleges that construction of the road will promote ground and surface water contamination from landfill leachate and will affect wildlife, wetlands, vegetation, and fish habitat. Concerns about the quality and timeliness of the public registry are also raised. The petitioner requests that all federal permits and authorizations be withheld until outstanding issues have been resolved. See related petition No. 105A.

Issues: Biological diversity (habitat) (wetlands), fisheries (habitat), environmental assessment, other (infrastructure), and water issues (navigable waters) (water quality) (enforcement)

Federal departments/agencies replying: Fisheries and Oceans Canada, Environment Canada, and Transport Canada

Status: Completed

Petition No. 99B: Follow-up petition on trumpeter swans in Judson Lake, British Columbia

Date submitted: 24 August 2004

Petitioner(s): Kevin Sinclair

Summary: In this follow-up petition on dying trumpeter swans in Judson Lake, the petitioner requests that the Canadian Wildlife Service of Environment Canada sample Judson Lake water, soil, and plant roots; analyze them for lead toxicity; and assess the risk of lead contamination to the health of humans and wildlife. The petitioner also asks that the Canadian Wildlife Service work with other stakeholders to remediate Judson Lake. See related petition No. 99A.

Issues: Biological diversity (conservation) (habitat) (wildlife) (wetlands), water issues (aquatic ecosystems), human health/environmental health (toxic substances), and international/bilateral issues (transboundary concerns)

Federal departments/agencies replying: Environment Canada

Status: Completed

Petition No. 90B: Follow-up petition on fishing practices and sensitive fish habitat in the ocean

Date submitted: 18 January 2005

Petitioner(s): Ecology Action Centre, Fisheries Recovery Action Committee, and Living Oceans Society (represented by the Sierra Legal Defence Fund)

Summary: This is a follow-up petition about the sustainability of the Canadian groundfish fishery. The petitioners direct a series of questions to the Minister of Fisheries and Oceans and allege that the use of bottom trawling and the associated equipment is harming fish habitat in the marine environment. The petitioners are concerned that continued use of this practice will undermine intentions to rejuvenate fish stocks through reduction of fishing and other efforts to rebuild fish stocks. See related petition No. 90A.

Issues: Fisheries (habitat) (conservation) and water issues (marine environment—oceans)

Federal departments/agencies replying: Fisheries and Oceans Canada

Status: Completed

Petition No. 82D: Follow-up petition on the Red Hill Valley Expressway in Hamilton, Ontario

Date submitted: 14 December 2004

Petitioner(s): Bob Hicks, Glen Atwell, and Wilamina McGrimmond

Summary: In this follow-up petition on the Red Hill Valley Expressway in Hamilton, Ontario, the petitioners allege that the habitat of several sensitive turtle species will be endangered by the development. The petitioners request that the Red Hill Valley Expressway development be reviewed to ensure the protection of the turtles and their habitat under the *Species at Risk Act* and that the government consult with Aboriginal people on the matter of turtle habitat protection under the Act. See related petitions 82A, B, and C.

Issues: Biological diversity (conservation) (endangered species) (habitat) and other (Aboriginal concerns)

Federal departments/agencies replying: Environment Canada and Fisheries and Oceans Canada

Status: Completed

New petitions

Petition No. 150: Rapid transit project serving the Vancouver International Airport

Date Submitted: 14 June 2005

Petitioner(s): A Canadian resident

Summary: The petitioner asks why financial commitments to the Richmond Airport Vancouver rapid transit project were made before an environmental assessment was completed. The petitioner also questions why the federal government is relying on the British Columbia Environmental Review Process to assess the environmental impacts of this large and complex project.

Issues: Environmental assessment and transportation

Federal departments/agencies replying: Environment Canada and Transport Canada

Status: Replies pending

Petition No. 149: Decision not to list Cultus and Sakinaw Lake sockeye salmon under the *Species at Risk Act*

Date Submitted: 10 June 2005

Petitioner(s): Sierra Club of Canada, B.C. Chapter

Summary: The petitioner claims that the Minister of the Environment's decision not to accept the recommendation of the Committee on the Status of Endangered Species in Canada, and include Cultus and Sakinaw Lake sockeye salmon on the List of Wildlife Species at Risk under the *Species at Risk Act,* was based on flawed analyses. The petitioner asks whether the Minister of Fisheries and Oceans and the Minister of the Environment knew about the shortcomings in these analyses. The petitioner, having provided the ministers with critiques of the analyses in November 2004, seeks clarification on why action was not taken to reassess the decision.

Issues: Biodiversity (conservation) (endangered species) and fisheries (conservation)

Federal departments/agencies replying: Environment Canada and Fisheries and Oceans Canada

Status: Replies pending

Petition No. 148: Protecting wild salmon from disease at fish farms

Date Submitted: 9 June 2005

Petitioner(s): Georgia Strait Alliance, United Fishermen and Allied Workers Union (UFAWU-CAW), and the David Suzuki Foundation (represented by Sierra Legal Defence Fund)

Summary: According to the petitioners, farmed fish may transfer bacterial and viral diseases to wild indigenous fish stocks, threatening their health. Concerns are raised by the petitioners that the federal government is not adequately responding to the risk of disease transfer through research, monitoring, surveillance, enforcement, and reporting. The petitioners suggest ways that Fisheries and Oceans Canada can improve its understanding and management of disease transfer, including monitoring the levels of disease in wild fish populations and establishing a list of reportable fish diseases for Canada.

Issues: Fisheries (aquaculture) (habitat) (enforcement) and other (information and reporting)

Federal departments/agencies replying: Environment Canada and Fisheries and Oceans Canada

Status: Replies pending

Petition No. 147: Evaluating the tax system to advance environmental goals

Date Submitted: 7 June 2005

Petitioner(s): Charles Caccia

Summary: The petitioner points to the 2005 federal budget, in which the Minister of Finance made a commitment to "look for other ways to use the tax system to advance environmental goals," and tabled an associated framework for evaluating environmental tax proposals. The petitioner wants the federal government to set a target date for completing its evaluation of the current tax system, so that the government can use the system to advance environmental goals in the next federal budget.

Issues: Other (economic instruments) (information and reporting)

Federal departments/agencies replying: Department of Finance Canada

Status: Reply pending

Petition No. 146: Firearms contaminants in federal training facilities

Date Submitted: 9 June 2005

Petitioner(s): A Canadian organization

Summary: The petitioner alleges that the federal government is not complying with standards governing air-borne lead oxide and toxic waste disposal at its indoor firing ranges. According to the petitioner, pollution from these ranges is affecting the health of individuals using them and contributing to the contamination of local air, water, and soils.

Issues: Air issues (air quality), human health/environmental health (toxic substances) (hazardous waste) (contaminated sites), and transportation (dangerous goods)

Federal departments/agencies replying: Environment Canada, Human Resources and Skills Development Canada, National Defence, Public Works and Government Services Canada, Transport Canada, and Public Safety and Emergency Preparedness Canada

Status: Replies pending

Petition No. 145: Business Park development in Surrey, British Columbia

Date Submitted: 3 June 2005

Petitioner(s): Fraser Valley Conservation Coalition

Summary: The petitioner is concerned about environmental impacts that may arise from the development of the Campbell Heights Business Park. The site for the Business Park is Stokes Pit—an environmentally sensitive area in Surrey, B.C. According to the petitioner, significant damage to wildlife species and habitats has occurred since the development project began in 2003. The petitioner asks that a comprehensive environmental assessment and a community consultation be completed before the project proceeds.

Issues: Biological diversity (conservation) (habitat) (wetlands) (wildlife), fisheries (habitat) (conservation), and water issues (aquatic ecosystems) (water quality)

Federal departments/agencies replying: Environment Canada and Fisheries and Oceans Canada

Status: Replies pending

Petition No. 144: *Pest Control Products Act* Regulations

Date submitted: 1 June 2005

Petitioner(s): Charles Caccia

Summary: According to the petitioner, there have been delays in putting regulations under the new *Pest Control Products Act* (proclaimed in 2002) in force. The new Act invokes the adoption of the precautionary principle, and when in place, the regulations would offer greater protection of public health and ecological sustainability.

Issues: Human health/environmental health (pesticides)

Federal departments/agencies replying: Health Canada

Status: Reply pending

Petition No. 143: Long-range plans for ski areas in Canada's Rocky Mountain parks

Date submitted: 9 May 2005

Petitioner(s): Under the Sleeping Buffalo Research

Summary: The petitioner believes that the ecosystem in Canada's Rocky Mountain parks is at risk from commercial activities. The petitioner seeks the government's assistance in securing ecological integrity objectives while contributing to the long-term sustainability of each ski area. Specifically, the petitioner notes that clear direction on comprehensive study reviews and the environmental assessment process is required.

Issues: Biological diversity (protected areas) and environmental assessment

Federal departments/agencies replying: Environment Canada and Parks Canada Agency

Status: Replies pending

Petition No. 142: Biodiversity and species at risk

Date submitted: 28 April 2005

Petitioner(s): Heathyr Francis

Summary: This petition deals with biodiversity, species at risk, and the programs created to prevent losses in these areas. The petitioner is concerned about the co-ordination of environmental monitoring programs, the varying levels of government involved, and the varying amounts of commitment of each group. In addition, the petitioner suggests that programs such as FrogWatch could be addressed in schools across Canada to promote awareness of biodiversity and species at risk.

Issues: Biological diversity (protected areas) (endangered species) (conservation)

Federal departments/agencies replying: Environment Canada

Status: Reply pending

Petition No. 141: Approval and registration process for pesticides

Date submitted: 18 April 2005

Petitioner(s): Allan S. Taylor

Summary: The petitioner is concerned about the registration and approval process for pesticides undertaken by the Pest Management Regulatory Agency within Health Canada. Specifically, the petitioner questions the assessment and approval of 2,4-D and Mecoprop.

Issues: Human health/environmental health (pesticides)

Federal departments/agencies replying: Health Canada

Status: Reply pending

Petition No. 140: Cleaning up the Sydney Tar Ponds and Coke Ovens

Date submitted: 13 April 2005

Petitioner(s): Mary-Ruth MacLellan and several Canadian residents

Summary: The petitioners are informing the federal government of their concerns about specific aspects of the proposed approach to cleaning up the Sydney Tar Ponds and Coke Ovens site. They ask the responsible ministers to apply the most stringent environmental standards and methods throughout the cleanup and that a panel review environmental assessment be undertaken to assess the cleanup proposal. The petitioners also ask for ministerial oversight of the project to ensure tight financial management and that the ministers place residents' health as the first priority in the cleanup.

Issues: Air issues (air quality), environmental assessment, and human health/environmental health (toxic substances) (hazardous waste) (contaminated sites)

Federal departments/agencies replying: Environment Canada, Health Canada, Public Works and Government Services Canada, and Transport Canada

Status: Completed

Petition No. 139: Managing government contractors for sustainable service delivery

Date submitted: 29 March 2005

Petitioner(s): UNITE HERE

Summary: The petitioners allege that a contractor providing uniforms and other services to the Canadian Food Inspection Agency (CFIA) has misrepresented environmental charges on its invoices and overcharged the government. The petitioners believe that the company's facilities have been contaminating water sources and allege that the invoiced "environmental charges" have not been used to manage the company's environmental impacts. The petitioners ask Agriculture and Agri-Food Canada and the CFIA to review the company's invoices and environmental record to ensure that the government has not been overcharged and that the environmental charges have not been misrepresented.

Issues: Human health/environmental health (toxic substances), water issues (drinking water) (water quality), and other

Federal departments/agencies replying: Environment Canada, Agriculture and Agri-Food Canada, Public Works and Government Services Canada, and Treasury Board of Canada Secretariat

Status: Replies pending

Petition No. 138: Strategic environmental assessment of a causeway in Rustico Harbour, P.E.I.

Date submitted: 17 March 2005

Petitioner(s): Rustico Harbour Authority

Summary: The petitioners are concerned about the environmental and economic impacts from a causeway that connects Robinson's Island to Prince Edward Island National Park in Rustico Harbour, P.E.I. The petitioners allege that the strategic environmental assessment that Parks Canada Agency and Fisheries and Oceans Canada are currently conducting on the remediation proposal for the causeway will not address the environmental concerns that the petitioners have brought forward. The petitioners ask that the assessment be halted and that another environmental process under the *Canadian Environmental Assessment Act* be initiated to deal specifically and exclusively with the installation of a breakwater on the eastern entrance to Rustico Bay.

Issues: Biological diversity (habitat) (protected areas), environmental assessment, fisheries (aquaculture) (habitat) (conservation), other (infrastructure), and water issues (marine environment—oceans)

Federal departments/agencies replying: Parks Canada Agency and Fisheries and Oceans Canada

Status: Completed

Petition No. 137: Strategic environmental assessment and the Red River Floodway

Date submitted: 7 March 2005

Petitioner(s): North Ritchot Action Committee

Summary: In petition 137, the petitioner asks the Minister of the Environment to provide details on the strategic environmental assessment of the Program of Operation for the Red River Floodway. The petitioner also asks the Minister to explain the removal of obligations on the Province of Manitoba to submit future program changes to the federal government for approval.

Issues: Environmental assessment, other (infrastructure) (federal-provincial co-operation), and water issues (watershed protection) (flood management)

Federal departments/agencies replying: Environment Canada

Status: Completed

Petition No. 136: Environmental assessments and permitting man-made dams

Date submitted: 21 February 2005

Petitioner(s): The Friends of the Oldman River

Summary: In petition 136, the petitioner provides a list of selected man-made dams and asks Fisheries and Oceans Canada to indicate which dams underwent a full environmental assessment prior to a "Letter of Advice" being issued. The petitioner also asks if the Department plans to conduct environmental assessments for those dams where environmental assessments were not completed prior to a "Letter of Advice" being issued. This petitioner has submitted two other petitions (118A and B) about the impacts of man-made dams on fish and fish habitat across Canada and the status of *Fisheries Act* authorizations on selected dams.

Issues: Fisheries (habitat) (conservation), water issues (aquatic ecosystems) (navigable waters), and environmental assessment

Federal departments/agencies replying: Fisheries and Oceans Canada

Status: Completed

Petition No. 135: Large-scale gravel removals from the Lower Fraser River in British Columbia

Date submitted: 8 December 2004

Petitioner(s): Mark Angelo, Vicky Husband, David Suzuki, Ron McLeod, and Daniel Pauly (represented by the Sierra Legal Defence Fund)

Summary: This petition concerns large-scale removals of gravel from the lower Fraser River in British Columbia. The petitioners allege that proposed large-scale removals of gravel will disrupt the river ecosystem and negatively affect fish and fish habitat. The petitioners also question whether the proposed removals will achieve the intended flood control measures for downstream communities. The petitioners are particularly concerned about a stretch of the Fraser River known as the "Gravel Reach" and about the associated impacts on the Fraser River White Sturgeon population. The petitioners ask for *Fisheries Act* authorizations to be reviewed and reconsidered.

Issues: Biological diversity (endangered species) (conservation) (habitat), fisheries (habitat) (conservation), and water issues (navigable waters)

Federal departments/agencies replying: Fisheries and Oceans Canada and Transport Canada

Status: Completed

Petition No. 134: Sustainable management of the Pacific herring fishery

Date submitted: 8 December 2004

Petitioner(s): Heiltsuk Tribal Council

Summary: This petition is about the sustainable management of the Pacific herring fishery and First Nations' involvement with the management of and access to the resource. The petitioners allege that the conservation of the herring resource and the protection of their Aboriginal rights to harvest herring have been compromised. The petitioners ask federal departments a series of questions regarding the sustainable management of the herring fishery and the engagement of the Heiltsuk in the management of the resource.

Issues: Fisheries (conservation) and other (Aboriginal concerns)

Federal departments/agencies replying: Indian and Northern Affairs Canada, Fisheries and Oceans Canada, and Department of Justice Canada

Status: Completed

Petition No. 133: Cumulative environmental effects of resource development in British Columbia

Date submitted: 19 November 2004

Petitioner(s): West Moberly First Nations

Summary: The petitioners are concerned about the cumulative effects of resource development (forestry, oil and gas, mining) on treaty rights, fish and wildlife, species at risk, and ecological integrity in northeast British Columbia. The petitioners request that the federal government conduct a regional environmental assessment under the *Canadian Environmental Assessment Act* with a scope that extends beyond project and site-specific assessments.

Issues: Biological diversity (endangered species), environmental assessment, fisheries (conservation), other (Aboriginal concerns), and renewable and non-renewable resources (energy) (forestry) (mining)

Federal departments/agencies replying: Indian and Northern Affairs Canada, Environment Canada, and Fisheries and Oceans Canada

Status: Completed

Petition No. 132: Ontario Mid-Canada Line radar site remediation

Date submitted: 15 November 2004

Petitioner(s): Mushkegowuk Council

Summary: The petitioners allege that toxic substances (for example, heavy metals, DDT, asbestos, PCBs, and petroleum hydrocarbon contaminants) are being released from abandoned Mid-Canada Line radar sites to surrounding soils, groundwater, animals, and foods, and are having an impact on the ecosystem and human health. The petitioners request that the federal government participate in remediating and restoring the sites.

Issues: Northern issues and other (information and reporting) (Aboriginal concerns) (environmental monitoring)

Federal departments/agencies replying: Environment Canada, Health Canada, Indian and Northern Affairs Canada, and National Defence

Status: Completed

Petition No. 131: Environmental monitoring in Nunavut

Date submitted: 17 September 2004

Petitioner(s): Nunavut Tunngavik Incorporated

Summary: The petitioner asserts that Indian and Northern Affairs Canada has not established a general monitoring program in Nunavut, as required under the terms of Nunavut Land Claims Agreement. This monitoring would encompass the collection and analysis of information on the long-term state and health of the ecosystem and socio-economic conditions in the territory. The petitioner suggests that this monitoring program is central to the sustainable development of Nunavut.

Issues: Northern issues and other (information and reporting) (Aboriginal concerns) (environmental monitoring)

Federal departments/agencies replying: Indian and Northern Affairs Canada

Status: Completed

Petition No. 130: Incentives to implement Canada's commitments under the Kyoto Protocol

Date submitted: 24 September 2004

Petitioner(s): Mark Gaudreault and several Canadian residents

Summary: The petitioners are requesting that the federal government support the implementation of the Kyoto Protocol and take action to reduce greenhouse gas emissions by introducing a GST rebate to purchasers of hybrid vehicles and small electric motors and by requiring auto manufacturers to produce a minimum number of low-emission vehicles each year.

Issues: Air issues (climate change), international/bilateral issues (international environmental agreements), other (economic instruments), renewable and non-renewable resources (energy conservation), and transportation

Federal departments/agencies replying: Environment Canada, Natural Resources Canada, and Department of Finance Canada

Status: Completed

Petition No. 129: Federal re-evaluation of pesticide 2,4-D

Date submitted: 17 September 2004

Petitioner(s): Dr. Kazimiera J. Cottam

Summary: This petition concerns Health Canada's Pest Management Regulatory Agency (PMRA) and its re-evaluation of the herbicide 2,4-D. The petitioner alleges that the Agency relies only on industry data to make its regulatory decisions and does not consider peer-reviewed scientific information. The petitioner maintains that the sporadic contamination of 2,4-D with cancer-causing chlorinated dioxins is not reported in industry data. The petitioner requests that the PMRA take into account independent, peer-reviewed scientific literature in its re-evaluation of 2,4-D, and in the evaluation of all pesticides. Finally, the petitioner requests that the PMRA maintain a statistical record of cancer incidence in Canada correlated to pesticide use.

Issues: Human health/environmental health (toxic substances) (pesticides)

Federal departments/agencies replying: Health Canada

Status: Completed

Petition No. 128: Cleanup of chemical contamination in Elmira, Ontario

Date submitted: 9 September 2004

Petitioner(s): Henry Regier

Summary: The petitioner is seeking federal government involvement in remediation and "sustainable re-development" in the community of Elmira in southern Ontario. According to the petitioner, hazardous wastes from munitions development for World Wars I and II and the American war in Vietnam have been buried in Elmira, and, together with a legacy of other heavy industry in the area and a poorly functioning landfill site and sewage treatment plant, the wastes have contributed to contamination of the community's air, water, and soils.

Issues: Fisheries (habitat), human health/environmental health (toxic substances) (hazardous waste) (contaminated sites), international/bilateral issues (international environmental agreements) (transboundary concerns), other (federal-provincial co-operation) (military-defence), and water issues (water quality) (Great Lakes)

Federal departments/agencies replying: Fisheries and Oceans Canada and Environment Canada

Status: Completed

Petition No. 127: Protection of fish habitat in riparian and streamside areas in British Columbia

Date submitted: 7 September 2004

Petitioner(s): West Coast Environmental Law

Summary: This petition concerns Fisheries and Oceans Canada's protection of fish habitat in streams in British Columbia communities. The petitioner alleges that by relying on provincial regulatory mechanisms to satisfy compliance with the *Fisheries Act*, the Department may be unable to prevent the harmful alteration, disruption, or destruction of fish habitat. The petitioner is not convinced that the province's new Riparian Areas Regulation will sufficiently protect fish habitat in streams. The petitioner requests that Fisheries and Oceans Canada work with the province to improve the regulation prior to its introduction in early 2005, to ensure that it will be effective and enforceable.

Issues: Fisheries (habitat) (conservation) (enforcement) and other (federal-provincial co-operation)

Federal departments/agencies replying: Fisheries and Oceans Canada

Status: Completed

Petition No. 126A: Fumigants and other pesticides in shipping containers

Date submitted: 25 August 2004

Petitioner(s): Tom Edwards

Summary: This petition concerns the report of a workplace incident involving a shipping pallet from overseas. The petitioner alleges that he was exposed to a toxic and banned pesticide when he opened the shipping pallet. There were no warnings or labels on the pallet. The petitioner asks the federal government to investigate the alleged use of a banned and toxic pesticide in the shipments that he handled and to implement measures to protect workers from inadvertent exposure to potentially toxic pesticides in shipping containers.

Issues: Human health/environmental health (pesticides) and transportation (shipping)

Federal departments/agencies replying: Health Canada and Transport Canada

Status: Completed

Petition No. 125: Federal regulation of genetically modified organisms

Date submitted: 16 August 2004

Petitioner(s): Jenn Robus

Summary: This petition concerns the assessment and regulation of genetically modified organisms (GMOs) in Canada. The petitioner is primarily concerned about the regulation of plant biotechnology and asks specific questions about the following: how departments determine whether or not a plant with novel traits is safe; the regulations and policies governing farm borders and farmers' rights in areas where genetically modified crops are produced; departments' review and enforcement of policies on GMOs; and departments' approaches to addressing public concerns about GMOs.

Issues: Biotechnology (GMOs) (regulation and policy) (enforcement)

Federal departments/agencies replying: Health Canada, Environment Canada, and Agriculture and Agri-Food Canada

Status: Completed

Petition No. 124: Enforcement of the *Fisheries Act* in the Province of Quebec

Date submitted: 11 August 2004

Petitioner(s): A Canadian resident

Summary: The petitioner alleges that the enforcement of federal fish habitat protection laws (primarily Section 35 of the *Fisheries Act*) is under-resourced in Quebec and that fish habitat is not being adequately protected there. The petitioner believes that a number of projects involving water-flow modifications have received provincial approval without due consideration to federal *Fisheries Act* requirements. The petitioner requests that Fisheries and Oceans Canada strengthen its enforcement activities in Quebec in order to protect fish habitat in that jurisdiction.

Issues: Fisheries (habitat) (enforcement)

Federal departments/agencies replying: Fisheries and Oceans Canada

Status: Completed

Petition No. 123: Resort development near Invermere, British Columbia

Date submitted: 26 July 2004

Petitioner(s): Jumbo Creek Conservation Society

Summary: This petition concerns the possible environmental effects from the development of a four-season resort in the Jumbo Valley near Invermere, British Columbia. The petitioners are concerned that water quality, aquatic habitat, fisheries resources, wildlife populations, and the water supply to the Columbia River and adjacent wetlands will be negatively affected if the project goes forward as proposed. The petitioners also question whether Indian and Northern Affairs Canada should be involved, given that the project site is located within an area of interest for treaty negotiations.

Issues: Biological diversity (endangered species) (habitat) (wetlands) (wildlife) (watershed protection), environmental assessment, fisheries (habitat) (conservation), international/bilateral issues (international environmental agreements) (transboundary concerns), other (Aboriginal concerns), and water issues (watershed protection)

Federal departments/agencies replying: Environment Canada, Fisheries and Oceans Canada, Indian and Northern Affairs Canada, Foreign Affairs Canada, and Transport Canada

Status: Completed

Petition No. 122A: Housing development near Mission, British Columbia

Date submitted: 22 July 2004

Petitioner(s): A Canadian resident

Summary: This petition concerns a proposed housing development near Mission, British Columbia. The petitioner believes that the development will damage the Silvermere/Stave River ecosystem and affect spawning salmon. The area is home to a number of listed endangered species that fledge and forage nearby. The petitioner asks that a statutory review or federal environmental assessment of the development proposal be conducted.

Issues: Biological diversity (endangered species) (habitat) (wetlands) (wildlife) (watershed protection) and fisheries (habitat) (conservation) (enforcement)

Federal departments/agencies replying: Environment Canada and Fisheries and Oceans Canada

Status: Completed

Appendix B List of recommendations

The following is a list of recommendations found in Chapter 8. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
Insurance for nuclear operators	
8.29 Natural Resources Canada should begin preparatory work on revisions to the *Nuclear Liability Act* and submit policy proposals to the Minister by the end of 2005, in order to advance the commitment to bring forward revisions to the Act. **(8.22–8.28)**	Natural Resources Canada agrees with the recommendation. The Department is undertaking significant policy work to ensure that the revisions required to the *Nuclear Liability Act* are addressed. The Department commits to completing its work on developing policy proposals for revisions to the Act by the end of 2005. The timeframe for bringing forward any revisions will be established by the government once the policy work is completed.
Impacts of hog farming	
8.58 In order to ensure that its compliance promotion and enforcement efforts related to hog farming are effective, Environment Canada should • identify the regulated community, • gather data on a national basis to direct or prioritize resources, • monitor the impacts of its efforts, and • keep comprehensive records on budgets and expenditures. **(8.48–8.57)**	Environment Canada agrees with the recommendation. It should be noted, however, that these recommended activities, although directed to hog farming, are relevant to all environmental issues where the Department has compliance promotion and enforcement responsibilities. The Department uses priority-setting mechanisms for both compliance promotion and enforcement activities under the *Fisheries Act* and the *Canadian Environmental Protection Act, 1999*. These mechanisms allow for the consideration and prioritization of all issues, including hog farming. Identification of all hog farms in Canada will be done in fiscal year 2006–07, in collaboration with Agriculture and Agri-Food Canada and provinces. This will help Environment Canada identify watersheds with the greatest agricultural impacts across Canada, and compliance promotion and enforcement efforts regarding hog farming issues will be more easily directed to issues of highest priority. This priority-setting exercise would need to consider the ongoing efforts by provinces and others to reduce the environmental impacts of hog farming operations. For example, many provinces have recently developed nutrient management regulations, which are also supported by various voluntary measures under the Agricultural Policy Framework.

Recommendation	Department's response
	To improve monitoring of the impacts of its efforts, Environment Canada will continue to track its compliance promotion and enforcement activities. The Department will also continue to pilot a database that could be used nationally.
8.75 Agriculture and Agri-Food Canada should clarify its approach to addressing the environmental impacts of hog farming and clearly communicate the approach to all stakeholders, in order to encourage a sustainable hog industry. The Department should also effectively communicate its beneficial management practices and monitor their implementation. **(8.59–8.74)**	Agriculture and Agri-Food Canada accepts the recommendations of the Office of the Auditor General. The Department is developing a communications plan to address the Environment Element of the Agricultural Policy Framework. This includes communications to producers about environmental stewardship, farm planning, and beneficial management practices that relate to hog and other kinds of farming activities. To clarify the approach and communicate it to all its stakeholders, the Department will improve the Framework's Environment Element on its Web site. The site will provide national and provincial information, as well as appropriate links to program delivery agents. The link to *ManureNet*, a national Web site, will be made more prominent. This site is dedicated to manure management issues in Canada and provides information including research projects, acts, regulations, guidelines, fact sheets, and new technologies. The timeline for completing this project is March 2006. The Department also commits to improving the communication of its environmental strategy through the next Sustainable Development Strategy. To communicate beneficial management practices, the Department will work to improve the availability of information for producers on relevant programs under the Agricultural Policy Framework. Direct communications with producers on beneficial management practices will also continue on a regional basis through provincial Environmental Farm Planning programs, and by provincial delivery agents of the National Farm Stewardship Program (NFSP). The timeline for completing this project is March 2006. To monitor the implementation of beneficial management practices, the Department will continue to collect information on implementation of these practices through delivery agents of the NFSP. Information will be stored in a national database. This information will also be used to support program refinements to foster increased implementation of the practices by all producers by March 2008. Through agri-environmental indicators, the Department will also continue to assess the broad impact of adopting beneficial management practices on the environment. Agri-environmental indicators are reported on a five-year basis, with the next report due in 2005.

Report of the
Commissioner of the Environment and Sustainable Development to the House of Commons—2005

Main Table of Contents

The Commissioner's Perspective—2005

Chapter 1 Fisheries and Oceans Canada—Canada's Oceans Management Strategy

Chapter 2 Ecological Integrity in Canada's National Parks

Chapter 3 Canadian Biodiversity Strategy: A Follow-Up Audit

Chapter 4 Safety of Drinking Water: Federal Responsibilities

Chapter 5 Drinking Water in First Nations Communities

Chapter 6 Green Procurement

Chapter 7 Sustainable Development Strategies

Chapter 8 Environmental Petitions